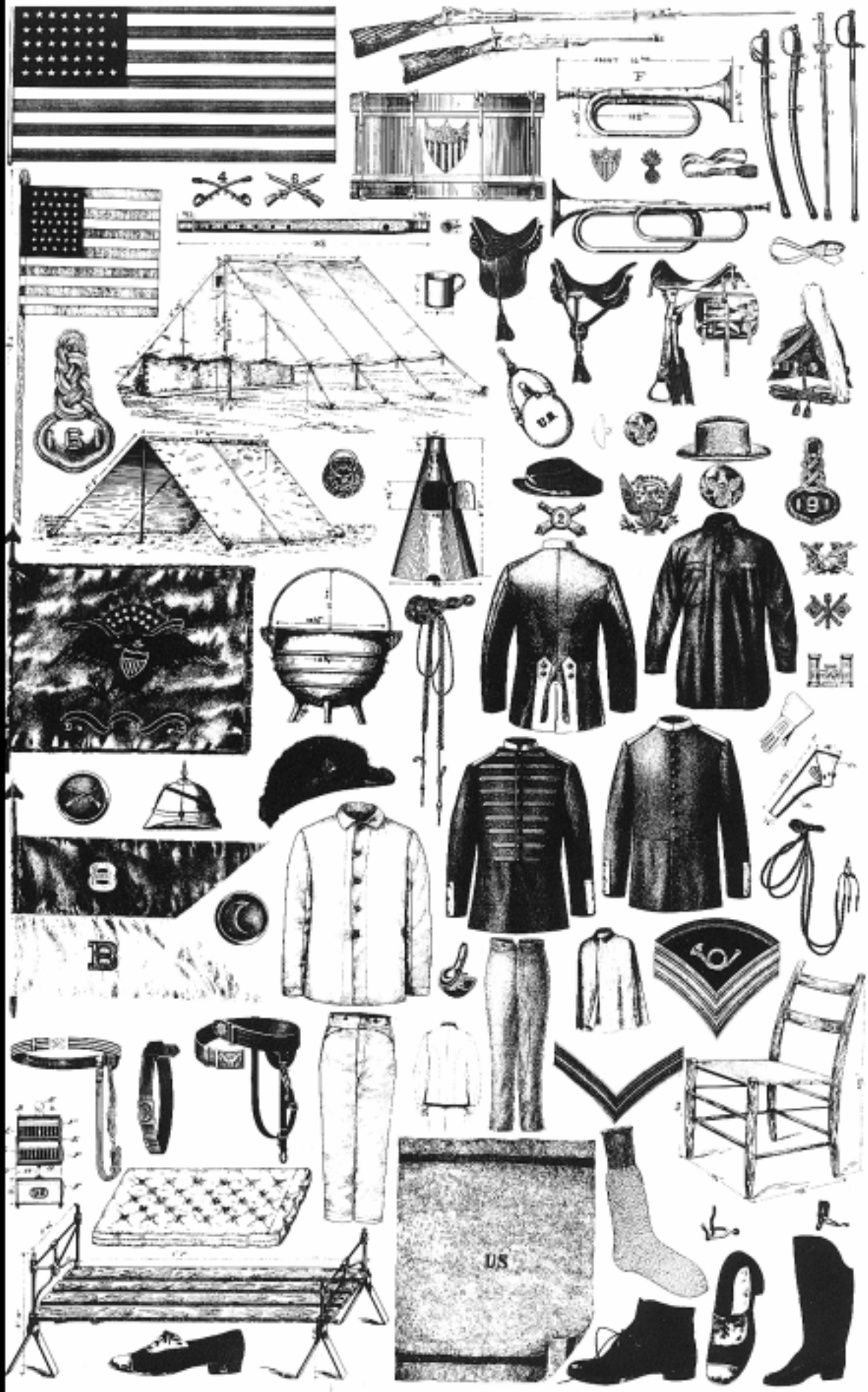
Fort Huachuca Museum



A Catalog

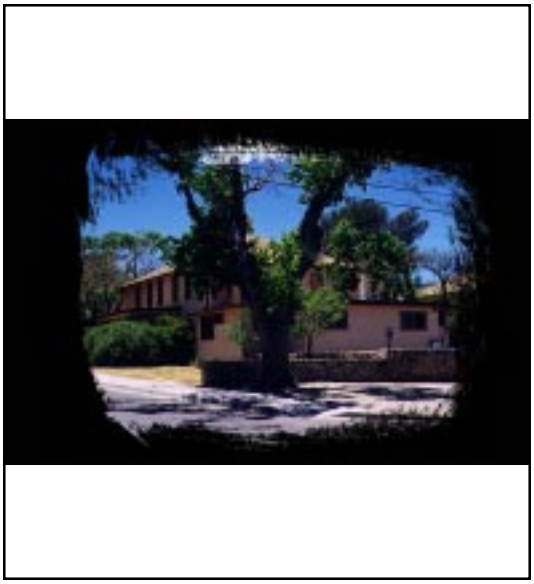
Contents

The U.S. Army in the Southwest: A Dimensional History

During the Civil War a column of California Volunteers led by Brig. Gen. "Jimmy" Carleton marched into Arizona and New Mexico to replace regular troops that had been withdrawn to fight in the east. One of these volunteer troops was First Sergeant George Hand of Company B, 1st California Infantry. He kept a diary of his experiences in 1862 and subsequent years. On 1 May 1863 Sergeant Hand was incensed when the company dog "Butch" was shot and killed by "some damned villain of an officer." For that murderer Sergeant Hand reserved his most awful curse. He wrote in his diary, "May he never get out of this country."

For the soldier the frontier meant prolonged bouts of boredom with a military routine far from civilization, relieved only by the occasional brush with a violft and lonely death. The terrain physically punished the trooper who found the desert floor furnace-hot and the mountain heights glacier-cold. In the scrub he was slashed by Spanish bayonets and clawed by prickly pears. He was poisoned by scorpions and rattlesnakes, chilled by summer monsoons, and exhausted by the vertical climbs of the mountain trails. This place of rock and needle tested the soldier and at the same time struck him with wonder.

The story of the soldier in the wonder-filled but punishing Southwest is the subject of the Fort Huachuca Museum. It traces the travails and triumphs of the U.S. Army from its first appearance on this bizarre landscape in 1846 when the Army of the West, led by Gen. Phillip Kearney, marched across it on the way to California to the present-day uses of this terrain for testing and training the Intelligence soldier. In between those two poles on a time continuum lay a succession of other intense dramas. There were the Apache campaigns in which leaders like Cochise and Geronimo would introduce the U.S. Army to a new kind of low intensity conflict. There was the story of the Buffalo Soldiers, African-American troops who came to call Arizona home for 50 years. There was the border with Mexico, the place where the action was 80 years ago. World War I, World War II, the Korean War, Vietnam, and the Gulf War, all saw Fort Huachuca playing its part as a training ground and site for the development of electronic warfare.



The museum has a host of offerings that reach far beyond its front door. It provides an educational capability to the Intelligence School

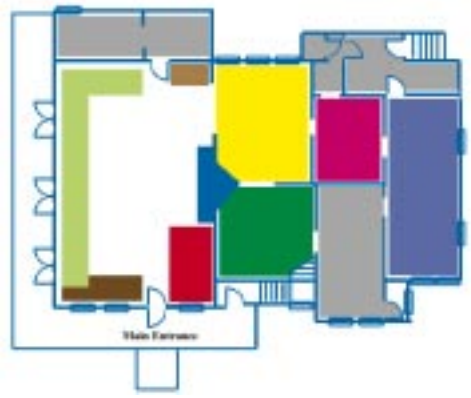
by supporting the Officers Advanced Course staff rides which begin with a early morning museum tour. The advanced NCO course at the NCO Academy uses the museum as the setting for its History Hunt program which asks students to answer questions about their traditions and history that are discoverable only through an attentive visit to the museum.

A wide range of museum publications, described elsewhere, are made available through its gift shop and the Army library. In addition to its own publications, the gift shop offers a good selection on pertinent military history. The museum provides, free of charge, reading lists and bibliographies to students of the heIntelligence School.

The Fort Huachuca Museums Collection

The catalog of the Fort Huachuca Museums collection is intended to accomplish several purposes. Foremost, it brings together for the first time a comprehensive survey of the history of U.S. Army uniforms, weapons, and equipment and tells how that history relates to the collection at the Fort Huachuca Museum. It matches up the story of the U.S. Army in the Southwest with the Army's material culture—those objects that can tell us something about the Army's heritage. The same applies for the history of military intelligence within the U.S. Army.

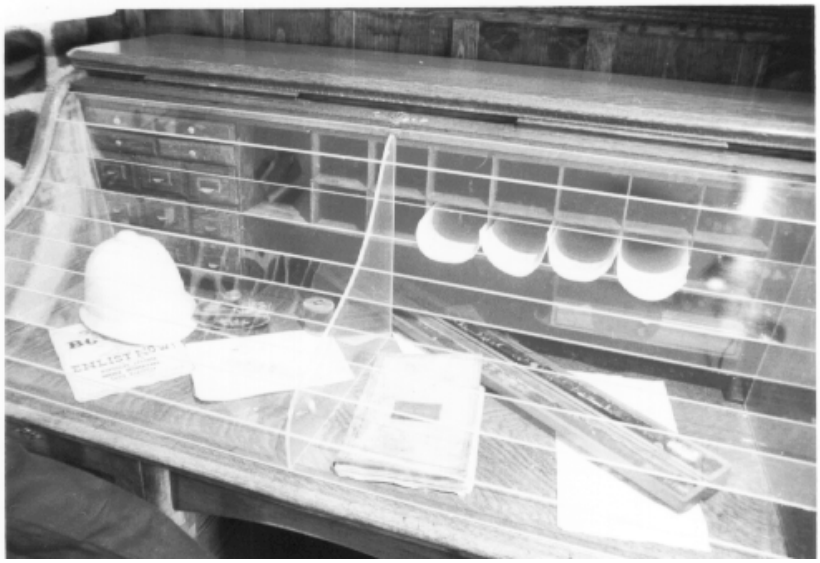
Additionally, it serves as a resource for the museum staff who may use it to answer questions, to identify artifacts, to write labels, and to use it as a study guide. It serves as a basis from which to develop lists of items the museum needs to collect. Conversely, it is a means of determining which items in the present collection are extraneous and may be deaccessioned. Finally, the catalog is an educational tool which can train the soldier and enlighten the general public.



The entries are arranged in the order they would be encountered on a museum tour. The artifact is printed in a color that corresponds to the color shown for the area on the accompanying diagram. Only those items in bold typeface are part of the museums' holdings.

Circa 1874 antique roll-top desk, made by the Gunn Desk Company of Grand Rapids, Michigan. (2132)
Applewood secretary's desk which once belonged to Brig. Gen. Samuel M. Whitside, who, as a captain, founded Camp Huachuca. (1195)

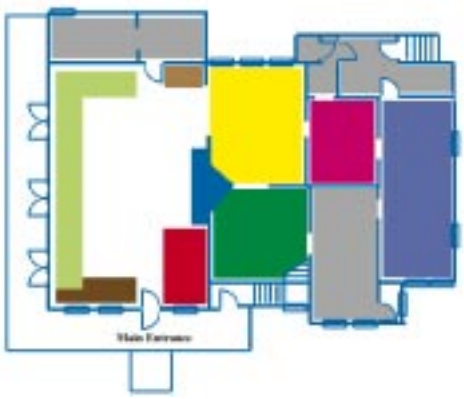
Antique desk. (Courtesy K. Stephens) (1232)
Post Orders book, 1 January to 17 September 1883, Fort Huachuca. Bound in leather, the book contains routine orders signed by the Post Adjutant and his assistants. The book reached the Fort Huachuca Museum by a circuitous route. It was discovered in 1974 by Mr. Thomas A. Zerintcheff of Santa Clara, California. Considering it of some interest, he sent it to the editor of *Reader's Digest*, who in turn sent it to the Archivist for the State of Arizona. The archivist, Ms. Blaise Gagliagno, relayed it to the Fort Huachuca Museum. (0228).



Ink blotter, of the type used in the 19th century. (0157)
Ink well and quill pen of the type used in the 19th century. (Repro)
1881-pattern summer helmet, enlisted model. The officer's model had side buttons and a chain chin-strap. A spike or plume were added on formal occasions. (2467)
Gold-headed, tortoise shell cane, presented to "The General of the American Army Samuel M. Whitside from the Veterans of Santiago (Cuba)." (Courtesy Lt. Col. John Healy) (2865)
M1876 five-button undress sack coat. (Repro)
M1879 trousers, with the officer's 1 1/2-inch stripe. (Repro)
Circa 1888 shoulder straps, captain of cavalry. (Repro)
M1889 officer's boots. (Courtesy D. Cornwall) (2863)
Circa 1880 strong box, used for shipping valuable items. (2864)

Chignon comb, lyre-shaped and studded with garnets. It belonged to Mrs. Samuel Whitside. (Courtesy Col. Whitside Miller) (0453)
Evening bag, high fashion from the 19th century, had a silver clasp and satin lining. It belonged to Mrs. Samuel Whitside. (Courtesy Col. Whitside Miller) (0454)
Silver calling-card case, a gift from General Whitside to his wife. In the very formal protocol of the times, calling cards were a necessity for a senior Army officer and his wife. (Courtesy Col Whitside Miller) (2001)
This porcelain doll of a European peasant girl was given Mrs. Whitside by her husband about 1900. (Courtesy Col. Whitside Miller) (2900)
Annual Report of Colonel Samuel M. Whitside, 10th U.S. Cavalry, Commanding, Department of Santiago and Puerto Principe, a personal copy of Whitside's bound in Morocco leather. (3348)
Two framed photographs of Colonel Whitside in Cuba in 1902. (Courtesy Col. Whitside Miller) (3347) (3349)
British Poets, an edition belonging to Mrs. Whitside. (Courtesy Col. Whitside Miller) (3350)
Hymnal, property of Mrs. Whitside. (Courtesy Col. Whitside Miller) (3352)
Replica of "Wounded to the Rear" by John Rogers (1829-1904). One of the most famous "Rogers Groups" from the Civil War period. The original is in the Lincoln Museum. (0156)
Telegram from President Jimmy Carter, congratulating Fort Huachuca on its centennial observance in 1977. (1301)

The Duel of Destinies



"Manifest destiny" was a phrase used to suggest the inevitability of American territorial expansion, especially in view of rapid population growth. It was first used by a newspaper editor who spoke of "our manifest destiny to overspread the continent allotted by Providence for the free development of our yearly multiplying millions."

The Indian could either fight or submit peacefully. Apaches chose to fight. Given their character and love of liberty, they could not have done otherwise. It was their destiny to defy the intruder just as the spiny desert terrain has resisted being overrun.

When Anglo soldier and Apache confronted one another in the Southwest, there was little reason to expect any attempt at mutual

understanding, although some on both sides tried. The Apaches could not understand the bluecoats who, for all of their inadequacies in counter guerilla warfare, were as relentless as the Arizona sun, just as the soldiers could not fathom the Indian who chose to fight against such overwhelming odds for so primitive a way of life.

The outcome of the Apache campaigns was predestined, but tragically postponed due to these breakdowns in understanding. With peace and relegation of the Apache to reservations, came a legacy of acrimony and guilt.

Leaving behind generalities and discussions of national policies, the historian must at last encounter the real history-makers—the individual soldier and brave. It was this front echelon that endured the hardships of combat, breathed death's stench, and received no reward other than the relief that comes with having survived another day. Theirs was the most difficult job, as it has been in every war, but without much of the glory that was bestowed on conventional campaigners that went before or came after them. Pursuing their separate destinies, troopers who had emigrated from County Kildare or Bavaria and the warrior who had roamed the Chiricahuas or Huachucas had in common the pride, the courage, and the exhilaration in victory that only a soldier knows.

Historian Robert M. Utley concludes his work on the *Frontier Regulars* with these words: ". . . the frontier army was not, as many of its leaders saw it, the heroic vanguard of civilization, crushing the savages and opening the West to settlers. Still less was it the barbaric band of butchers, eternally waging unjust war against unoffending Indians, that is depicted in the humanitarian literature of the nineteenth century and the atonement literature of the twentieth. Rather the frontier army was a conventional military force trying to control, by conventional military methods, a people that did not behave like a conventional enemy and, indeed, quite often was not an enemy at all. This is the most difficult of all military assignments, whether in Africa, Asia, or the American West. The bluecoats carried it out as well as could be expected in the absence of a later generation's perspective and hindsight. In the process they wrote a dramatic and stirring chapter of American history, one that need not be diminished by today's recognition of the monstrous wrong it inflicted on the Indian."

Outpost in Apacheria

Gran Apacheria was the name given by Spanish colonizers to an area roughly comprised of present-day Texas, New Mexico and Arizona, the northernmost reaches of New Spain. The Spanish had considerable success in coming to terms with the Indians on this frontier, with the notable exception of the Apache.

The rapid influx of Anglo-American settlers brought about the predictable confrontation with the long-time inhabitants—the Apaches. The need for protection by both the white and the Indian was filled by the U.S. Army. Military posts began to spring up across the Territory of New

Mexico of which Arizona was then a part. (Arizona became a territory in 1863 and a state in 1912.) The first of these forts within Arizona's boundaries was Fort Defiance in 1851, followed by Fort Buchanan in 1856, Fort Mohave in 1859, Fort Breckinridge in 1860, and Forts Lowell (Tucson) and Bowie in 1862.

In February 1861, the great Chiricahua Apache leader, Cochise, was accused by Lt. George N. Bascom of stealing horses and abducting the stepson of a Sonoita rancher, John Ward—charges which Cochise steadfastly denied. He was seized along with six others of his tribe, including a woman and two children who had entered Bascom's camp for a peaceful parley. Cochise is said to have escaped by slashing through his tent jail with a knife and darting up the canyon amid rifle fire from the surprised guards. During the next two weeks, the Apaches took white prisoners with whom they could bargain for the release of their kin. Bascom added to his hostages when a relief column under Asst. Surg. Bernard J. D. Irwin rode in with three Coyoteros who had been captured as they herded stolen cattle. A prisoner swap proposed by Cochise was refused by Bascom because he insisted on the Ward boy being included in the exchange, a condition with which Cochise apparently could not comply. When Army patrols found the white hostages burned and mutilated, they hung the six Apache men nearby. This incident provoked a once friendly Cochise into a course of single-minded revenge, one which he would pursue for the next ten years to the terror of every white settler in the territory.

Their first clash took place in the traditional Indian stronghold, Apache Pass, and was the largest scale battle fought between the U.S. Army and the Apache. In it, Capt. Thomas Roberts with 126 men and two mountain howitzers fought off an ambush of 700 Apaches led by Cochise and Mangas Coloradas after 10 hours and 2 American casualties. Indian losses were reported at nine. It was the only engagement in Arizona in which artillery played an important part as the soldiers were able to bring it to bear on Apaches massed at a waterhole behind breastworks. To secure Apache Pass, a major route for the Butterfield Stage, and the nearby water, Carleton's troops built Fort Bowie. It was the first of many outposts established by the volunteers from California.

Peace with Cochise was to be negotiated in 1872 by a delegate from President Grant, Brig. Gen. Oliver O. Howard, and Thomas Jeffords, a trusted friend of the Apache leader. The Chiricahuas were eventually placed on the San Carlos reservation. Cochise dictated the terms of the peace demanding the land surrounding Apache Pass as his own. Jeffords was to act as Indian agent. Two years after the death of Cochise in 1874, the Chiricahuas were moved to the San Carlos reservation by the Indian Bureau, and Jeffords would become the Post Trader at the new Camp Huachuca.

While these events with the Chiricahuas were taking place, Lt. Col. George Crook, having been named commander of the Department of Arizona in 1871, was able to concentrate his efforts on the Tonto Basin area where Yavapais had long been a scourge. His heroic campaign of

1872-3 subdued the Indians and placed them on the Camp Verde reservation. Crook was promoted to Brigadier General and reassigned to another trouble spot.

This peaceful interlude in Arizona was to be brief, as the Apache was not content to be a farmer on a reservation for long. Bands of Indians would slip off the reservation for weeks at a time and plunder the countryside, raiding into Mexico, much to the distress of the Mexican government. These renegades plagued American-Mexican relations. Col. Augustus Kautz, who succeeded General Crook as departmental commander (and who would be succeeded by Col. Orlando B. Willcox), was faced with the impossible task of policing 113,000 square miles with a handful of companies scattered throughout the territory. The Apache, on the other hand, was highly mobile and instinctively knew each trail and every place of concealment.

The key to Kautz's strategy to reduce the Apache sallies across the border was to establish a permanent camp astride their traditional pathways to Mexico. He delegated this task to Capt. Samuel M. Whitside of the 6th Cavalry. Whitside and Troops B and M, riding south from Fort Lowell in Tucson, arrived in Huachuca Canyon 3 March 1877 and selected the site for their permanent camp. From the peaks in the Huachuca range, both the San Pedro and Santa Cruz valleys could be observed and, being hard by the border, it was an ideally situated outpost from which to lead patrols. The canyon's timber and a creek offered all of the necessary logistical conveniences.

On the Trail of Geronimo

The Geronimo story is the last chapter in the Apache campaigns and clearly the most intense. Its two central characters were forceful personalities whose names were known to almost everyone of their generation and would be remembered by generations to come. Geronimo, as a young man, had raided with Chiricahua warriors such as Mangas Colorado, Cochise and Victorio. When 29, his mother, wife, and children were killed by Mexican soldiers, instilling in him a rare capacity for hatred and vengeance. In 1883 he was 54 years old and the uncontested leader of the footloose Chiricahuas on the San Carlos Reservation. A cavalry officer who knew him well described him as "thoroughly vicious, intractable, and treacherous," while a cousin and follower saw him as "vigorous and farsighted" and "in times of danger . . . a man to be relied upon." As did many of his contemporaries, Geronimo had an incurable fondness for tizwin (an Apache home brew) and white man's whiskey. His stature among the Apache war chiefs is exaggerated by the historical quirk that he was the last to terrorize the Southwest and the most lionized by the press. However, notwithstanding press hyperbole, terrorize he did with fervor and unmitigated cruelty.

Geronimo's chief adversary and perhaps the best Indian fighter

the U.S. Army produced was Brig. Gen. George Crook. An Ohioan and 1852 graduate of the U.S. Military Academy, he began his career in northern California and Oregon and had earned a reputation for success in western service by the outbreak of the Civil War. During that conflict, Crook earned a regular army rank of Lieutenant Colonel and received for gallantry a brevet Major Generalcy. At war's end he was back in the West, fighting the Paiutes. His penultimate challenge came in 1871 when he was assigned as Department of Arizona commander and presented with the inflammatory Apache problem. While Gen. Oliver Otis Howard, a personal emissary of President Grant, negotiated peace with Cochise in the south, Crook scourged the Tonto Basin in the north of Yavapais and Apache hostiles and brought a tentative peace to the territory. For his efforts Crook was awarded a promotion to Brigadier General and a reassignment to the Sioux Wars where his talents were desperately needed.

Called "Grey Wolf" by the Apaches, Crook was an avid outdoorsman, hunter, and horseman (although he often preferred the sturdier mule). His success in controlling the Apaches was attributed to both his tactics and his administration. As a soldier he was a practitioner of incessant pursuit and an innovator. Recognizing that only an Apache could track an Apache, he organized companies of Apache Scouts. And he improved the mobility of his cavalry columns by supplying them with pack trains rather than the troublesome wagon. As an administrator he was a just man who understood the Indians and their problems. He was respected by the Apaches as a worthy military opponent and, more importantly, as a white man who would look out for their interests.

When renegade Chiricahua Apaches under Juh and Geronimo bolted from the San Carlos reservation to the fastness of the Sierra Madres, the territory was racked with new fear. The best man to deal with the Apache was recalled to Arizona in 1882 and began immediately to assume an unflagging offensive. He first talked with Mexican officials to assure that the recent treaty allowing "hot pursuit" into Mexico would be honored and to elicit their cooperation in his planned operations.

Personally leading a column of 193 newly recruited Apache Scouts and a troop of regular cavalry, Crook, Capt. Emmett Crawford, and Lt. Charles B. Gatewood probed far into Mexico.

A defector from an earlier raid into Arizona, called Peaches, guided the force into the enemy's sanctuary. In actuality Crook and his men were at the mercy of the hostile Apaches, but he depended upon boldness and the psychological factor induced by having mobilized other Apaches against the renegades. The Chiefs came into Crook's camp to talk, men like Chihuahua, Nana, Loco, Nachez, Kaytenne, and Geronimo. All were apparently persuaded to surrender and return to the reservation. The Warm Springs Apaches under Nana and Loco returned at once, but the Chiricahuas tarried and continued to cause

unrest until their eventual return to San Carlos in 1883 and 1884.

Their reservation domicility was short lived however. Balking at a Crook-imposed ban on tizwin and wife-beating, they longed for an old way of life in the Sierra Madres. In May of 1885, 42 braves and 92 women and children slipped off during the night and made for old haunts in Mexico. They were led by Geronimo.

In an attempt to prevent the Apaches from using their Mexican stronghold as a base for raids into the United States, Crook cordoned off the border, placing patrols at "every water hole along the border from the Patagonia mountains to the Rio Grande." At the same time he sent the commands of Capts. Wirt Davis and Emmett Crawford into Mexico to scout the Sierra Madres. Their force consisted primarily of Apache scouts, the wisdom of which was challenged by Gen. Phillip H. Sheridan when he visited Crook's headquarters at Fort Bowie.

As Crawford closed in on Geronimo, he was killed in a firefight with Mexican militia who claimed they had mistaken the American column for renegades, a claim which few could believe.

However, the stage was set for a second dramatic conference between Geronimo and Crook. Their meeting took place in Canyon de los Embudos on March 25, 1886. Demanding unconditional surrender, Crook promised that the only alternative to surrender open to the Apaches was to be hunted down no matter how long that might take. He then offered a more palatable way out for Geronimo, promising them confinement in the East for two years after which they would be free to return to San Carlos. The Apaches agreed to the terms,

but before they could be escorted safely back to the reservation, Geronimo, drunk on whiskey smuggled to him by a white trader, changed his mind and dashed back to the mountains with Nachez, 20 men and 13 women.

This had a devastating effect on the general, who was already under heavy criticism by a panicky populace for being too fair to the Apache. His surrender terms were not accepted by Washington, which called for unconditional surrender. In view of these reversals, Crook resigned, leaving the field to Gen. Nelson A. Miles, a Civil War hero and Western campaigner.

Miles' job was made more difficult because the did not have the respect of the Indian that Crook enjoyed and because he discounted the value of Apache Scouts.

But, undaunted, Miles organized an expedition of his own of hand-picked, hardened regulars under the command of Capt. Henry W. Lawton at Fort Huachuca. Lawton's second in command was an assistant contract surgeon named Leonard Wood, who would make a name for himself as a line officer in Cuba and become Army Chief of Staff. On May 5, 1886, with the band playing "The Girl I Left Behind Me," Lawton and his seasoned troopers embarked from Fort Huachuca on what was to be one of the most grueling pursuits of the Apache campaigns.

Miles' eventual success was attributable to several factors, not the least of which was the bravery of Lt. Charles B. Gatewood who, with two

Apache Scouts, located Geronimo's camp and entered it to talk with the unpredictable war-chief. Gatewood spoke the Apache language and was well known to Geronimo from the Crook operations. He was able to convince Geronimo and his followers of the futility of continued resistance. The arguments carrying the most weight had to be Miles' removal of the Chiricahua and Warm Springs Apaches to Florida, a move that cut the renegades off from family and reinforcements. And, although Lawton's column had failed to make contact during four sweltering months in the field, the Apaches could not fail to be awed by this most persistent of American efforts. Escorted by Lawton and Wood, the Chiricahuas trekked north to Skeleton Canyon where, on 4 September 1886, they surrendered officially to General Miles.

The bloody and unparalleled Apache campaigns were at a close. In the years to come a few Apache desperadoes would undertake a fugitive existence, but never again to the extent witnessed up until 1886. Geronimo joined his tribesmen in Florida and eventually they were sent to Fort Sill, Oklahoma, for confinement. He died there at the age of 80 from pneumonia contracted while lying outdoors all night after a drunken spree.

The U. S. Soldier in Apacheria

Uniforms. Following the Civil War, the dark blue blouse and light blue trousers of the Union Army continued as the standard uniform. With uniform stocks dwindling by the 1870s and incessant complaints from soldiers about the ill-fitting and impractical Civil War leftovers, the Army changed the uniform style in 1872, although some Civil War uniform items continued to be issued until at least 1880. The new uniform style of 1872 lasted throughout the Indian campaigns and it was not until after the turn of the century that it was replaced by khakis and olive drabs that are familiar to current generations. Especially striking were the dress uniforms heavily influenced by British, French, and Prussian embellishments, such as plumes, breast cords, tassels, and colorful pipings. Each branch of service had a distinctive color which trimmed the dark blue uniform. Military uniforms are the constant subject of criticism by the rank and file and it was ultimately those complainers and improvisors who prompted modifications in the Indian War uniform.

A soldier's often heard criticism was having to bear the expense of tailoring the ill-fitting Civil War uniforms. One enlisted man complained that "They had 2 or 3 sizes and just threw you out a suit of clothes.... As soon as I had money enough I had the tailor make me up a uniform of non-commissioned officer's cloth." [quoted in Coffman, 343]

Between 1872 and 1899, several uniform regulations successively brought improvements in the uniform. The running quarrel was not with the dashing dress uniform so much as the undress or field uniform. Soldiers found it unsuited to extreme conditions found in the field chasing Indians and often adopted individual expedients like neckerchiefs to keep

out the Arizona dust. These were purchased at the sutler's store and could be of almost any color or pattern. They were not a uniform item nor were they always yellow, as the traditional western movies would have us believe. An excellent example of field soldiers ignoring the unrealistic dictums of rear echelon quartermasters is the Geronimo pursuit of 1886 when Capt. Henry Lawton's troop out of Fort Huachuca tracked in the Sierra Madre mountains dressed only in wide-brimmed campaign hats and long underwear.

The boots were the subject of widespread grievance. The uppers were attached to the shoes with brass screws, causing much painful blistering. One commander, Colonel Richard I Dodge, wrote, "Many a man is discharged...a cripple for life, from having been forced to wear the things called shoes now furnished by the government." The Quartermaster General, Montgomery C. Meigs, noted in his 1880 report that the durability of the brass screw as opposed to sewn boots outweighed the discomfort caused the soldier and issued metal files so that "the difficulty can be remedied by the soldier himself." But the soldiers were already taking advantage of another solution offered by an 1879 General Order which authorized the men to purchase and wear civilian shoes and boots. In one artillery unit, only one man in twenty-six was found to be wearing the Army-issued boot. A new Quartermaster General, Samuel B. Holabird, in 1884 fielded a new sewn boot and a shoe for garrison use.

Weapons. The chief development in firearms during the Indian Wars was the conversion from the muzzle-loaded .58 caliber rifle/muskets of the Civil War. The last of these "mini-ball" weapons were retired from standard service by 1869. The large stocks from the Civil War were converted by Erskine S. Allins, Master Armorer at the U.S. Armory in Springfield, Massachusetts, to load a metallic cartridge at the breech. The metallic cartridge greatly improved accuracy and ease of loading. This series of "Allin Conversion" weapons culminated in the 1873 model, .45 caliber, 70 grains of powder, Springfield rifle and carbine, a standard issue until replaced in 1892 by the Krag rifle. Also achieving unanimous approval in the same year was the Colt .45 six-shooter, a metallic cartridge pistol which replaced the cap and ball handguns of the Civil War. After its adoption by the Army in 1873, the "Peacemaker" became the most popular sidearm in the West and was the Army's standard issue for the next twenty-five years.

A member of Crook's expedition into Mexico in 1883 said the Apaches were "armed with Winchester and Springfield breech-loaders, with revolvers and lances whose blades were old cavalry sabres. The little boys carried revolvers, lances and bows and arrows." [Bourke, AACISM, 88]

Equipment. Like the uniform, equipment for the early Indian War was drawn from Civil War stocks, some items of which saw service even after 1900. Improvements and innovations came exclusively from the experiences of the soldier on the western frontier.

CATALOG

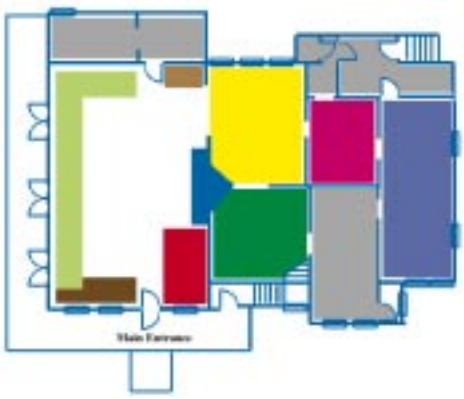
Various models of each piece of equipment were in use during the Apache campaigns. A Fort Huachuca cavalryman preparing to campaign against Geronimo in 1886 would have departed with a full saddle pack and typically would have been carrying his Springfield carbine in a boot attached to the off-side of his saddle; a carbine sling on his shoulder to which to fasten the weapon when dismounted; forty-five rounds of ammunition in his cartridge belt; a blanket with a change of clothing inside, rolled in a shelter tent and strapped on the rear of the McClellan saddle; a nose bag slipped over the roll outside of the shelter tent; sidelines spread out over the blanket roll and under the straps; a lariat rolled around a picket pin and snapped to the left rear ring and pulled up under the blanket roll; a tin plate, knife, fork, and spoon in the off saddle bag; a curry comb, brush, and watering bridle in the near saddle bag; and four days rations distributed evenly in both saddle bags. The rations would include hardtack, salt bacon, dried beans, and green coffee. Extra ammunition might also be carried in both saddle bags. He would also carry on his person a haversack, saber belt, holster, .45 Colt, and spurs. Unless ordered to do otherwise, he probably left his saber behind, it having little use in Apache warfare. A full field pack could amount to as much as 50 pounds, although one commander at Fort Huachuca is known to have forbidden more than 30 pounds.

U.S. Soldier in Apacheria

The U.S. soldier in Apacheria was an explorer, mapping and surveying the American Southwest; a pioneer, prominent in mining, ranching, and territorial politics; a scientist, classifying natural history species and building the first public telegraph in Arizona; and a rebel, fighting the westernmost battle of the Civil War. He was a builder, a tactician, and an Indian fighter. He will tell you in his own words of his experiences and feelings on this frontier. Compare his life with that of today's soldier.

Regular Army O

There was Sergeant John McCaffery
and Captain Donohue,
They make us march and toe the mark,
in gallant Company "Q,"
Oh the drums would roll, upon my soul,
This is the style we'd go,
Forty miles a day, on beans and hay,
In the Regular Army O.
We wint to Arizona
for to fight the Injins there;
We came near being made bald-headed,



but they never got our hair.
We lay among the ditches,
in the yellow dirty mud,
And we never an onion,
a turnip, or a spud.
—Indian Wars Soldier's Song

Western Diamond-back rattlesnake, found in the Huachucas. (1320)
"Apaches," oil, Karl Wolff, 1979. (1272)

Former Civilians

"...the Danbury hatter, watchmaker, sailor, counterhopper, shoemaker, tailors, doctors, lawyers, dentists, pumpkin rollers, preachers, and...the bowery boy. —1876 recruit

Wages

"A dollar a day is damn poor pay, but thirteen a months is less."
—From an Army song

Marksmanship

"I was black and blue all over the shoulder and down into my chest. I got so I couldn't help flinching and I didn't make a very good score." —Clarence Allen, 7th Cavalry, 1877

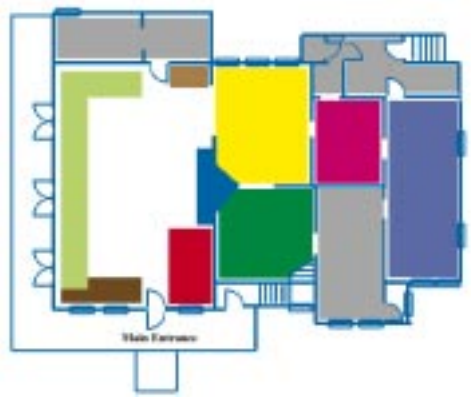
Readiness

"...Cavalrymen as a general thing are about as well fitted to travel through a hostile country as puling infants, and go mooning around at the mercy of any Indian who happens to catch sight and takes the trouble to lay for them behind the first convenient ridge." —An Army surgeon, 1876

M1873 Colt single-action Army revolver. Over the next 18 years, the Ordnance Department received about 37,000 of these .45 caliber revolvers known as the "Peacemakers." Most models had a 7 1/2" barrel and was the Army's first standard metallic cartridge revolver. It was the standard service pistol until its replacement in 1898 with the .38 caliber double-action revolver.
Paper cartridge box, believed to have been used experimentally during the Indian Wars. (0551)

M1874 McKeever cartridge box. This hinged model with loops for 20 cartridges was invented by Lieut. Samuel McKeever and adopted for infantry. Later it would be used by cavalry, but in garrison only. (0557)
"The Poker Game," oil, James P. Finley, 1979. (1273)
"Marksmanship," oil, Karl Wolff, 1979. (1274)
Circa 1880 wooden ammunition crate. Marked "1000 rounds, Winchester Rim Fire" and "Metallic cartridges Manufactured by the Winchester Repeating Arms Co., New Haven, Conn. USA." (1290)
M1879 Springfield carbine. The first carbine version of the "trap-door" Springfields, it has a hinged door in the butt plate allowing for storage of a cleaning rod and shell extractor in a stock compartment. (1297)

M1873 bayonet. A traditional triangular bayonet, 21 inches long, having a 3-inch socket equipped with a locking ring. It was used on the majority of M1873 rifles. (2080)
Indian War cartridges of various calibers and loads. Metallic cartridges loaded in the breech began to replace the muzzle-loaded percussion cartridge after the Civil War. They marked an improvement in loading speed and accuracy. The .45 caliber ball cartridges for the M1873 rifle and carbine were officially adopted the same year and began being manufactured at Frankford Arsenal the next year. In 1877 government arsenals began using the headmarking system recommended by Lieutenant Colonel Benton at the National Armory. The headstamp on the rear of the cartridge would show the type of weapon at the top (e.g., "C" for carbine), the month of manufacture on the left, the year of manufacture on the right, and the code for the arsenal on the bottom (e.g., "F" for Frankford Arsenal) (Donated by Donald Mott.) (2632)



M1873 Springfield rifle. A Board of Officers was convened in 1872 to adopt a modern breech-loading weapon for the Army. The Board was in session until 1873 and after "exhaustive examination and trial of over 100 arms, including those adopted by the first military powers of Europe," the Board recommended the Springfield breech-loading system. At the same time an Ordnance Board selected caliber .45 as the standard for rifles, carbines, and revolvers. The Model 1873 differed from earlier U.S. Army

rifles primarily in the reduction of caliber to .45, taking a center-fire reloadable cartridge of 70 grains of powder. Experts at the time declared the M1873 Springfield rifles and carbines to be "probably the best...ever placed in the hands of troops." (3011)
Circa 1860 Canteen. This tin canteen covered with kersey cloth was adopted prior to the Civil War and, with a slight modification in 1885, was used until the turn of the century. (Donated in memory of Wilson Thompson.) (3818)

Military Bearing

"Inspection competition was keen. The one chosen as orderly received a pass. Much time was spent polishing and sprucing up for inspection." —Sergeant A. J. Unger

First Sergeants

"The first sergeant was in full charge of the troop, what he says and does is backed up by the Captain. ...There were 6 duty sergeants and 4 corporals in the Co., all subject to his orders. He had a room all to himself, called the orderly room, where he slept—he ate with the men in the dining room—he called the roll three times a day—reveille, tattoo, and retreat. He drew all the rations and clothing...made out all guard details, stable police, KP [kitchen police], and old guard fatigue—had all the men clean and presentable for Sunday morning inspection—he also made out all orders for detached service...and visited the sick and wounded in the hospital." —Sergeant Perley S. Eaton, 3d Cavalry

M1884 gauntlets. Gauntlets replaced Berlin gloves for mounted troops in 1884 and the original goatskin was soon replaced by calf skin. (0141)
M1851 Navy Colt, .36 caliber. These revolvers were first issued to 1st and 2d Cavalry regiments recruited in 1855. Along with the M1860 Army .44 caliber Colt, it was the favored sidearm of cavalry until the .45 Army Colt of 1873. (0232)
Marksmanship badges, Blunt System. Worn on the collar of the dress uniform after the late 1880's to denote achievement in marksmanship. Specifically authorized for the first time in 1899 uniform regulations. (0549)
M1885 saber belt. (0591)
M1885 carbine sling. (1059)
M1885 full dress coat for cavalry corporal. This model differs from the M1872 in a new collar design, removal of belt loops from the back, and modified rear vents. The facings are of the darker shade of

yellow adopted by the Cavalry in 1887 to slow fading. Gold lace chevrons were authorized for dress coats in 1884.

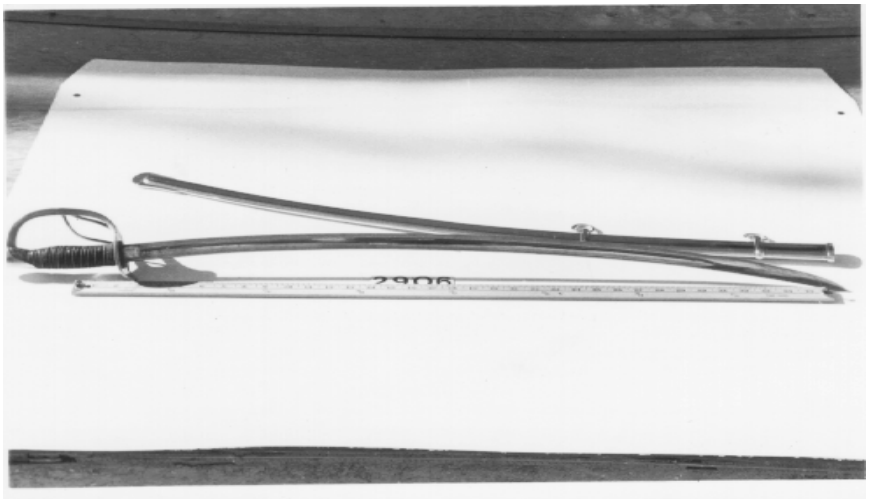
"Military Bearing," felt pens, James P. Finley, 1979. (1275)

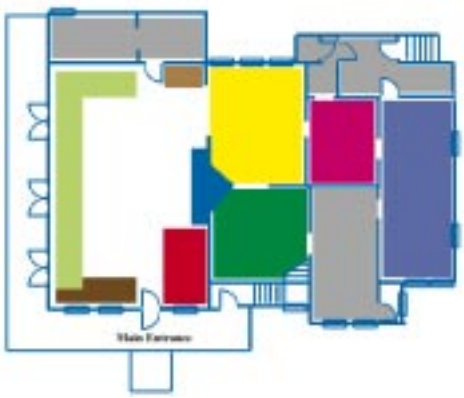
"First Sergeant Perly Eaton," charcoal, James P. Finley, 1979. (1276)

M1881 Cavalry dress helmet. The Uniform Regulations of 1881 prescribed a new helmet pattern for both officers and enlisted. Mounted troops had plumes while dismounted had spikes. The officer's helmet had a buffalo-hair plume and gilt trimmings. The enlisted model had a horsehair plume and worsted cord, tassels, and band.

M1879-pattern trousers. Sky-blue in color, trousers for mounted men were reinforced in the seat. The 1/2-inch stripes represents the rank of a corporal. Sergeants had 1-inch stripes and officers 1-1/2 inches. (2750)

M1861 light cavalry saber. Introduced for enlisted cavalrymen, it was lighter and narrower than its predecessor, the M1840 Heavy Cavalry Saber or "wrist-breaker." The standard trooper's saber until the 1913 "Patton" cavalry sword, it was reserved for dress occasions. When the trooper ventured into the field, he normally left the cumbersome saber behind since the enemy seldom came within range of a saber stroke. However, some traditionalists staunchly defended the saber: "Give our troopers the saber. Sharpen it and teach them how to use it. It never misses fire, and who does not believe that the gallant Custer would not have given millions for a hundred sabres when he made the last stand?" (Courtesy Mrs. G. Johnson) (2906)





M1885 pistol holster. Modified to accomodate either the Colt "Peacemaker" or the Smith and Wesson "Schofield" revolvers.

M1885 spurs. Of cast brass, smooth finish, with 3/4-inch bar loop on side for spur straps, with steel rowels, 27/32-inch in diameter.

M1888 linen collar. Adopted in 1887 and authorized for wear with the dress coat for all enlisted personnel in 1888 regulations.

NCOs

"I would rather take $5 a month from my own pay, if necessary, and give it to the noncommissioned officers, rather than have their pay reduced." —Col. Guy V. Henry, testifying before Congress in 1876

Work Details

"This labor of the troops' was a great thing. It made the poor wretch who enlisted under the vague notion that his admiring country needed his services to quell hostile Indians, suddenly find himself a brevet architect, carrying a hod and doing odd jobs of plastering and kalsomining." —Captain John G. Bourke

Complaints

"We first enlisted with the usual ideas of the life of a soldier; ...but we find in service that we are obliged to perform all kinds of labor, such as all the operations of building quarters, stables, storehouses, bridges, roads, and telegraph lines; involving logging, lumbering, quarrying, adobe and brick making, lime-burning, mason-work, plastering, carpentering, painting, &c. We are also put at teaming, repairing wagons, harness, &c., blacksmithing, and sometimes wood chopping and hay-making. This is in addition to guard duty, care of horses, arms, and equipments, cooking, baking, police of quarters and stables, moving stores, &c., as well as drilling, and frequently to the exclusion of the latter." —From an 1878 complaint to Congress

"Hearing Complaints," oil, Karl Wolff, 1979. (1979)
"Captain Bourke," oil, James P. Finley, 1979. (1278)
Circa 1880 beer bottle. Label reads "Milwaukee Brewers, Co, Extra Foreign Stout, Denver, Colorado." (2222)
Tools, used at the time the permanent buildings at Fort Huachuca were built. (Courtesy Anne Stradling) (3095, 3096, 3098, 3099)

Discipline

"I was the only man in the troop, for any length of time, who had never been in the Guard-House and I had prided myself on account of that fact. It is said 'Pride goeth before a fall.' Any way I was greatly crestfallen when I fell into prison, and it came near making me a poor soldier for the future, and caused me to dislike officers more than ever." —Corporal Wm. B. Jett, 4th Cavalry, Fort Huachuca, 1885

Guardhouse Song

Poor old soldiers! Poor old soldiers!
Tarred and feathered and sent to hell,
Because they wouldn't soldier well.
—Rogue's March

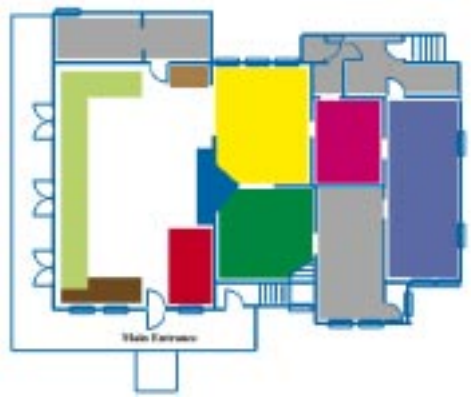
Prisoners' Work

"The most disagreeable of all duties, to me, was guarding prisoners all day long to keep them at work or prevent their escape. This was especially true concerning Sunday work. It was customary to have prisoners cut wood for the officers all day on Sunday and to stand and watch them fool with their axes made me feel that I had rather do the work than watch others do it." —Corporal Wm. B. Jett, 4th Cavalry, Fort Huachuca, 1885

Guard Duty

"Of course there was drill, guard, and herd guard to do. We usually had from three to four nights in bed before we were called to twenty-four hours guard duty. During the night this meant two hours walking, then four hours trying to sleep along side other men on a hard platform, with clothes and ammunition belt and shoes on, then two more hours walking. ...What a fool I had been to put myself in virtual slavery for five years at thirteen dollars a month." —Corporal Wm. B. Jett, 4th Cavalry, Fort Huachuca, 1885

M1885 saber belt.
"Portrait of Corporal Jett," oil, Karl Wolff, 1979. (1279)
M1881 dress helmet, artillery. (2244)



Circa 1870 leg irons. These leg irons were not an uncommon component of the uniform, as punishment was harsh in an Indian Wars Army that maintained strict discipline despite its casual appearance. (2310)

M1885 full dress uniform coat, Artillery corporal. (Courtesy H. Elvey.) (2469)
M1884 post shoes.

Ambushed

"May 3d [1871]...camped in a canon on east side of Huachuca Mountains, fresh moccasin tracks clearly indicating the presence of Indians...May 5th...I followed the track about three fourths of a mile...I became convinced that we were being led into a trap...the Indians seeing our party so small rushed down from all sides...saw Lieut. Cushing clasp his hands across his breast and fall to the ground...commenced a running fight for about a mile...I believe I am stating the truth when I set down the number of enemy killed at thirteen...our casualties were Lieut. Cushing, Mr. Simpson and Private Green killed, and Private Pierce wounded...the men all behaved well." —Sergeant John Mott, Troop F, 3d Cavalry, in a report describing Cushing Massacre

Guerilla Warfare

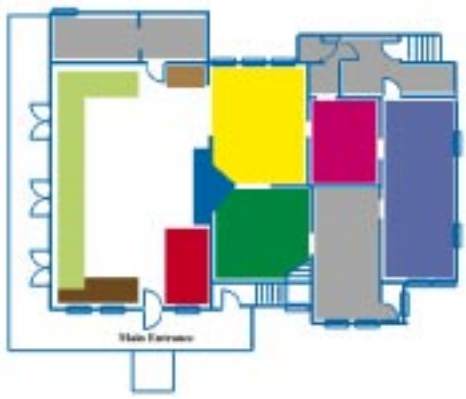
"The Indians travelled on fast broncos in the lightest marching order possible and ate whatever they could lay their hand upon among tame, or wild animals without, necessarily, cooking the food. And a dog meant good meat to them when pushed for food. Uncle Sam's forces must needs march under heavy accoutrements; sidelines, picket line, nosebag, canteens, saddle pockets with a change of underclothing, mess kit, blanket on cantle of saddle, two blankets under saddle in winter time, overcoat on pommel of saddle, ammunition, gun and sometimes sabre." —Corporal Wm. B. Jett, 4th Cavalry, Fort Huachuca, 1886

Indian Attack

"Twice the sergeant was shot, and then the third time, right by my side. At the third shot he said, 'Boys, I am done for.' ...Right here I want to give as truthfully as I can my reactions in this encounter with the Indians. When the firing first began, the surprise was so great and I was so shocked at the death of my old friend Neihause, that the only thing, otherwise, I thought of was to run to the wagon and get my gun as the others did. I was very much scared and actually thought possibly it would be best to surrender, as to stay where there was certain death, and to cross the open ground to the opposite hills in full view of the Indians seemed almost as hopeless. This physical fear I felt was coupled with the thought of the great sorrow that would come to my loved ones in Virginia when they heard of my death." —Corporal Wm. B. Jett, 4th Cavalry, Fort Huachuca, 1886

M1885 Infantry haversack with strap. (0225)

M1883 five-button fatigue or garrison blouse. (0360)
1884 pattern boots for mounted troops. (Repro)
M1885 meat can and plate. (0774)
M1881 Mills cartridge belt. It was adopted in 1881 and considered a vast improvement in the means of distributing the weight of ammunition. The belt was only the beginning for its inventor, Capt. Anson Mills. Other webbed equipment that was purchased by the armies of the world made him wealthy. (1141)
M1884 Sibley tent stove. This heating and cooking stove was issued with each Sibley tent. Their designer was Maj. H. H. Sibley, 2d Regiment, U.S. Dragoons. The stove design made them easy to stack and transport and was retained even through World War II. (2201)
Neckerchief. Non-issue item procured by troopers to protect them from dust on the march. Every conceivable color and pattern was worn but seldom was seen the yellow scarves always present on the movie cavalrymen. (Repro)
M1885 campaign hat. For officers and enlisted. Dimensions are almost the same as the M1875 hat but ventilation holes were punched in the side of the crown and fur felt replaced wool felt in the hat bodies. Two colors, drab or black, were available (each troop was required to be uniform) until 1889 when enlisted could wear only the drab and officers still had their choice.
M1883 overshirt. Of a dark blue Army-standard wool flannel, it came in five sizes. It was worn without rank insignia and usually with suspenders. It was not until 1901 that regulations authorized the wear of the overshirt without a blouse, but then only when drilling in "extremely warm weather." Many Arizona photos, however, show



only the shirt being worn long before 1901.

Rations

"For breakfast we had beef hash, dry sliced bread (no butter) and coffee (no milk), for dinner, sliced beef, dry bread and coffee, for supper, coffee straight—just dry bread and coffee—the food was very poor." —Sergeant Perley S. Eaton, 3d Cavalry

Appetites

"I ett so much at dinner time that I could hardly waddle about. You may be astonished though to know what I usually eat, for a soldier don't generally get the best of grub you know, so I will tell you if it will be of any interest to you. We had roast beef and potatoes and gravy and apple dumplin. I eat and eat, and till I couldn't—I won't say what." —Private Charles Lester, 4th Infantry in an 1869 letter to his sister.

Payday Celebrations

"The next day was payday and a hilarious time was had. The saloons and gambling houses were wide open and in Kelley and Beatty's saloon, the Officer of the Day came in and ordered the men back to the camp. One of the men, full of liquor and beer, grabbed the Officer of the Day, took his belt off and threw him under the billiard table." —Private H. Hasbers, 1871

Abstinence

"Soldiers made fire water out of mescal, they called it Indian Fire Water. I drank Mexican mescal once, was tied up for two days and never drank again in my life." —First Sergeant George Neihaus, 10th Infantry, Arizona

Entertainment

"As may be imagined there was very little entertainment at Huachuca for the men except card playing, gambling, whiskey drinking and worse. A few days after payday, which was every two months, a few men had all the money, though often it changed hands again. Men used to discuss before payday how much money they would have to gamble with, buy liquor and spend on the demi-monde. ...There were a few ranchers with respectable families near the Fort and sometimes a dance was staged at one of these homes. I recall one I attended gotten up by the cowboys of the community. Each attendant paid five dollars to attend, but this fee paid for a girl partner, which meant those in charge must see to each one was provided with such partner in the dance."

—Corporal Wm. B. Jett, 4th Cavalry,
Fort Huachuca, 1885

Economic Growth

"Mr. C. E. Burton, propietor of the Burton Hotel of Fort Huachuca, has been in the city for the last few days. He says the country surrounding Fort Huachuca is filling to the brim. All of the available agriculture and grazing land is now settled upon. Stock is turning the Mesa grass into meat, and the country is full of activity. Miners and prospectors are moving in every direction, and new finds are the rewards for their labor. Fort Huachuca for years has been considered the choise (sic) spot of southern Arizona. The temperature is about 25 degrees less than Tucson, owing to the altitude. Excellent water is found in abundance. The rolling mesa lands are heavily timbered and together with the beautiful mountain scenery is what will make Huachuca the Saratoga of Arizona."

"Rations," oil, Karl Wolff, 1979. (1280)

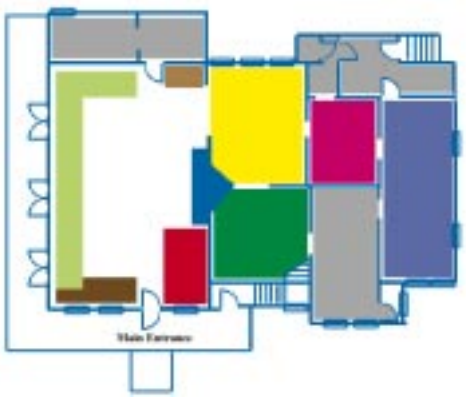
1895 Regulations of the United States Army. Contains all regulations including those pertaining to awards, finance, Indian Scouts, Quartermaster, libraries, recruiting, records-keeping, and the Articles of War. Today's Army regulations require several book shelves to store. (1291)

M1885 composite bunk (as pictured in 1885 Annual Report of Secretary of War). Both ends were identical and were joined together by a wire mattress-support. (2401)

M1840 Musician's sword and scabbard. This model was essentially the same as the 1840 NCO sword. The musician's sword is four inches shorter. (Courtesy D. Canales) (2436)

Circa 1880 kerosene hanging lamp. (2853)

M1861 Light Cavalry saber. (0234)



Reasons for Fort Huachuca

"I recommend that a site for a post be selected, permanent buildings erected and a garrison of some strength assigned it, that protection may be afforded to all these mining towns, and which will be an asylum to our citizens now in Sonora, in case of revolutionary or other troubles—a place which they might reach quickly, or from which a force might be sent promptly to their relief, if necessary."

—Major James Biddle, Acting Assistant
Inspector General, 1880

Fort Huachuca Compared to Other Posts

"Fort Huachuca was a picturesque place nestling at the foot of the mountains about eight miles from Huachuca station on the Southern Pacific Railroad, and like most other Government Forts of that day, was supplied with water running down from the mountains. As long as we

were in the Fort quarters there were more comforts at hand than I had any where else during my stay in the West. There was some hard work, however, in the Fort, and I have not forgotten carrying the hod of mortar on my bony shoulder many a day up to the men who were laying the sun dried adobe blocks in the erection of barracks."

—Corporal Wm. B. Jett, 4th Cavalry,
Fort Huachuca, 1884

M1874 picket pin. This design was patented by William Lyons and adopted by a board of officers in 1874. It was the standard picket pin until 1912. (0618)

M1885 McClellan saddle. Used until replaced by the 1904 model which differed slightly in the rigging and was russet in color instead of black. The saddle is named for Capt. George B. McClellan of the 1st Cavalry who developed the design after studying the armies of Europe which were engaged in the Crimean War. His design replaced the Grimsley saddle in 1859 and remained the U.S. Cavalry's saddle until mounted troops were phased out during World War II. The unique feature was an exposed rawhide tree which protected the horse from chafing. (0883)

M1885 Saddlebags, were of a pattern called "California style," and replaced the M1879 bags which had a belly strap.

"Westward," oil, Karl Wolff, 1979. (1281)

"Fort Huachuca Cemetery," oil, Karl Wolff, 1979. (1282)

Circa 1886 branding iron, with numeral "4," used to mark the horses of the 4th Cavalry. (2897)

Circa 1878 die, used to stamp the hooves of horses belonging to K Troop, 6th Cavalry. (Courtesy Layne) (2907)

Circa 1886 horseshoe. Reported to have been found in Skeleton Canyon at the site of Geronimo's surrender to General Miles in 1886. (Courtesy C. M. Vix)

M1885 carbine boot.

M1885 watering bridle.

Short-timer

"I have just one year from tommorrow to serve, and thank God, then I am done soldiering in the regular army. I don't believe there is a thing worse than being in the regular army and out of civilization, but I have got use to it and don't mind it so much as I use to...."

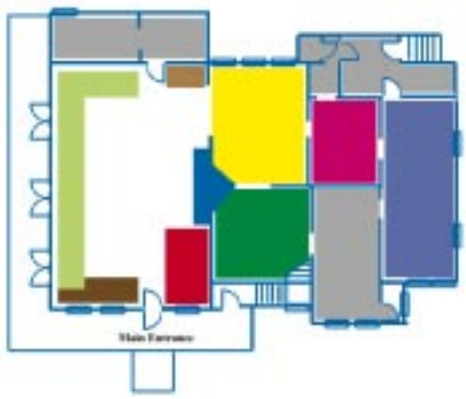
—Private Charles Lester in an 1869 letter to his sister

Reminiscences

"With the strange contradictoriness of the human mind, I felt sorry that the old days had come to an end. For somehow, the hardship, and deprivations we have endured, lose their bitterness when they have become a memory."

—Martha Summerhayes, military wife

M1895 forage cap. For use by both officers and enlisted, it was a complete departure from the kepi or chasseur-style cap worn since 1872. This hat bears M1887 Signal Corps insignia. (0034)



M1885 five-button fatigue blouse. From 1889-91 this

blouse was authorized for full dress by the Signal Corps. Note the black, piped in white, Signal Corps chevrons, first prescribed in 1889 for both full dress and garrison use. (0371)

M1887 trousers. Dark blue replaced the light blue trousers, although the light blue stocks were still issued after 1887 to deplete stocks. The black stripe on the leg is an example of the black trim that replaced the orange for the Signal Corps in 1891. (0371)

M1874 saber belt with "US" buckle. (0591)

"Short Timer," oil, Karl Wolff, 1979.

M1902 Signal Corps dress cap (enlisted). (0035)

M1895 forage cap. (1075)

M1895 officer's forage cap. (1285)

M1880 summer helmet, with red and white plume of the Apache Scouts. (2206)

M1881 dress helmet, officer's model. The black buffalo-hair plume indicates Signal Corps (changed from the orange plume in 1891) as do the crossed signal flags on the infantry eagle plate. Its wearer was a signal corps officer attached to the infantry. (2344)

M1872 officer's forage cap. The gold cord was prescribed by General Orders in 1883 and officers had one year to provide themselves with this strap. The enlisted cap bore brass (rather than gold embroidered) insignia and had a leather chin strap. (2347)

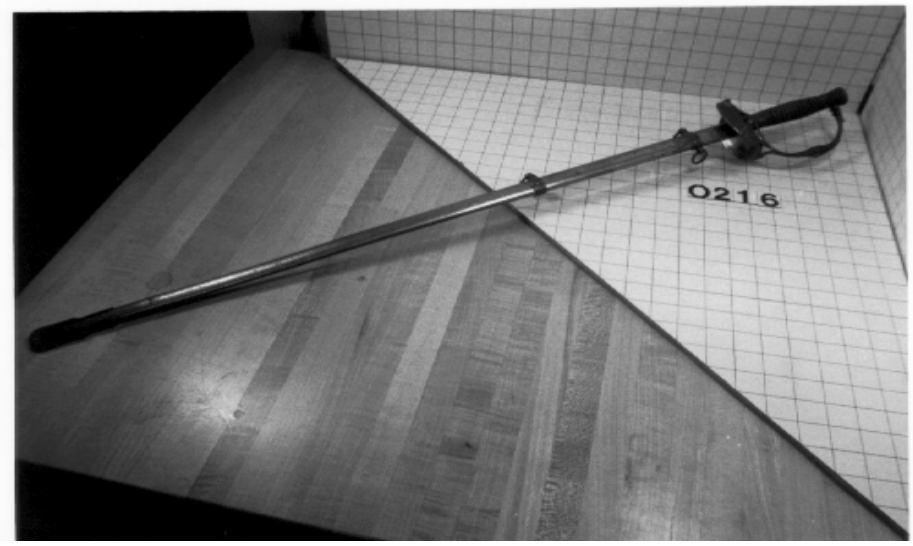
M1879 muskrat cap, with fold-down ear flaps and visor, first adopted in 1879. Used at northern posts.

M1885 full dress uniform for Infantry corporal. In 1885 the Infantry trim changed from light blue to white facings after it was learned that the light blue faded rapidly in the sun.

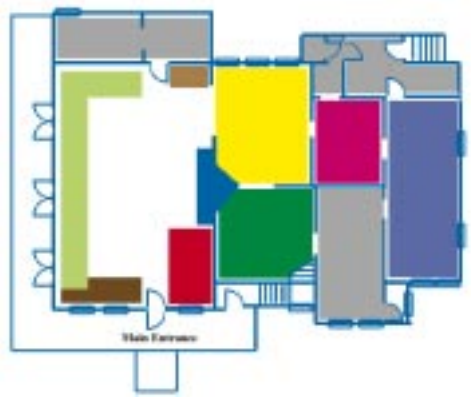
Circa 1888 general officer epaulettes. (0184)

M1860 staff and field officer's sword. For ornamental use only,

as the sword was too delicate to wield in battle. Many officers preferred the sturdier 1850 model and continued to carry the earlier model until 1872 regulations made this sword mandatory for all officers, except medical, paymasters and mounted officers of Infantry, Cavalry and Light Artillery. (Courtesy A. B. Carnahan) (0216)



Circa 1882 chapeau de bras. (2934)



M1888 full dress frock coat. It has Coast Artillery buttons. (3308)

M1872 Cavalry officer's saber belt with M1851 belt buckle. (Repro)

Projected Mannikin

The Army issued new uniform regulations in 1872 that would dramatically alter the old civil war uniforms and give soldiers the resplendence they sought after the monotony of the wartime sack-coat. A dress uniform, with its plumed helmet for mounted troops, would copy the pomp of European armies and would be in favor until 1902 regulations would adopt the familiar 20th century earth colors.

The M1872 plaited fatigue blouse was recommended in 1868 by a medical report issued by the Surgeon General's Office. Patterned after a Swiss blouse, it was intended "to fit well but leave the neck entirely free," and be "large at the shoulder and in the arm, for the most unconstrained exercise of a muscular man, and small at the wrist; very full in the body with longitudinal plaits in front...." Only two years later it was replaced with the M1874 five-button sack coat, owing to its general unpopularity with the men. One soldier complained to the *Army & Navy Journal* in 1873: "To the military mind the 'ruffled blouse' is an object of utter disgust and loathing. When received, it is a shapeless mass, and when the unsuspecting votary of Mars is inducted into it, it converts him into a shapeless mass, destroying in him all resemblance to anything either in nature or art, and so transmogrifying him that his own mother would fail to recognize him."

The M1872 black campaign hat, with a yellow worsted hat cord, was worn with the brim fastened up, as was called for by regulations, or with its wide brim down to provide shade from the southwestern sun, as was more often the case. It received its inspiration from the *voltigeur* hat named for the regiment of *voltigeurs* formed by Col. T. P. Andrews at the start of the 1846 Mexican War and later adopted by the 2d Dragoons while in Texas in 1853.

The American Soldier in the Apache Campaigns

"It is gratifying to the Commanding General to announce to the troops serving in this Department the close of the Indian campaign, and the establishment of permanent peace and security against future depredations of the hostile Apaches, as the result of the fortitude and endurance of the troops in the field."

"You have effected the subjugation of the hostiles under Geronimo and Natchez, and...all have been removed to a place of safe custody. ...You will regard higher than all praise, the deep and lasting gratitude which comes from the thousands of homes scattered over this vast area to which you have given security and happiness."

—General Nelson A. Miles
in Field Orders No. 12, 7 October 1886

"A more thankless task, a more perilous service, a more exacting test of leadership, soldiership, morale and discipline no army in Christendom has ever been called upon to undertake than that which for eighty years was the lot of the little fighting force of regulars who cleared the way across the continent for the emigrant and settler, who

in summer and winter stood guard over a wide frontier, whose lives were spent in almost utter isolation, whose lonely death was marked and mourned only by sorrowing comrades, or mayhap grief-stricken widow and children left destitute and despairing. There never was a warfare on the face of the earth in which the soldier, officer or man, had so little to gain, so very much to lose. There never was a warfare which, like this, had absolutely nothing to hold the soldier stern and steadfast to the bitter end, but the solemn sense of Soldier Duty."

—Capt. Charles King, Fifth Cavalry

The Geronimo Campaign

Lessons Learned

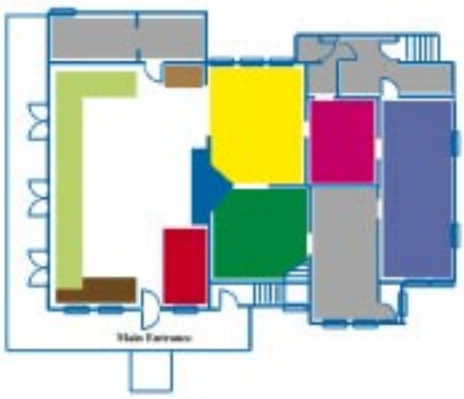
The bloody and unparalleled Apache campaigns were at a close. The Chiricahuas, including the hostiles, the reservation Indians and the Army scouts, were put on trains and shipped to posts in Florida.

Army leaders learned that guerilla warfare is one of the most difficult to counter. The overriding lesson of the Indian Wars was one of adaptability; adaptability to the physical demands of the terrain, adaptability to the new tactics required for a totally different kind of warfare, and an adaptability of technology matched to needs. Faced with a deceptive and highly mobile foe, Brig. Gen. George Crook solved some of the problems of intelligence by employing Indian Scouts as reconnaissance units. Attention to discipline, strategic outposts and the tactic of relentless pursuit attacked the other problems of understrength garrisons and blind patrolling. General Crook was able to extend his mobility by employing mule trains rather than wagons to pack supplies for long arduous treks over impossible terrain.

The troopers learned the importance of physical fitness, an element that was essential in a campaign, like so many others, that depended wholly upon endurance in coming to grips with the enemy. The heat and hardships of the campaign broke down many men. One enlisted man wrote that after returning to Fort Huachuca in 1886, "E Troop lost 17 men who were discharged because they had broken down in health after that terrible ride [chasing Geronimo]."

The Spanish-American War and Fort Huachuca's Vistas

The "Splendid Little War" with Spain in 1898 would have history-changing ramifications for the nation, the Army, and Fort Huachuca. For the country, it meant that the next century would bring "world power" status for the once isolationist United States and all of the awesome responsibilities that accompany that position. For the Army, it meant the dawn of modernization and professionalism in its ranks. For the Army's African-American soldiers, it meant that they had once again proven themselves and opened, just a crack, the door that could lead to promotion from the NCO to officer ranks, as was the case with Sergeant Major Benjamin O. Davis who would become the Army's first black general officer in World War II. For Fort



Huachuca it would mean a century of growth, the housing of regular Army units with proud fighting records, and a new routine for Army families that would now include the expectation of overseas tours. Fort Huachuca's horizons had been amplified from the mountainous haunts of Apache renegades to the distant shores of foreign foes.

From Indian Frontier to Empire: A Period of Army Transformation

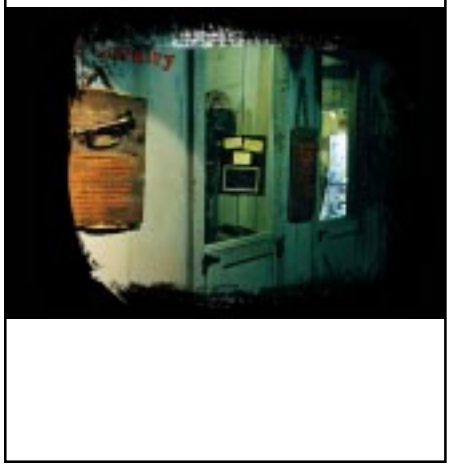
The Battle of Wounded Knee in 1890 brought to a close the era of the Indian-fighting Army. Many changes began to occur in the Army as the United States emerged as a world power.

In 1898, after the battleship U.S.S. Maine was blown up in Havana harbor, Congress declared war on Spain. This war was fought by national guardsmen, volunteers and regulars on three fronts. Cuban independence from Spain was gained after the 9th and 10th Cavalry took El Caney, the key to the defense of San Juan, in July. The Spanish surrendered Puerto Rico a month later after Gen. Nelson A. Miles, remembered for his Indian fighting, landed and moved on the capital. And, finally, in the Philippines the Spanish surrendered after Rear Adm. George Dewey destroyed the Spanish fleet in Manila Bay. However, the Army now had to face Philippine insurgents under Emilio Aguinaldo who would not be satisfied until the Philippines were totally independent.

At the same time, the Army was participating in an international force in China, where the lives of non-Chinese, including Americans, were being threatened by Chinese nationals called "Boxers" by the western press. The China Relief Expedition, led by Maj. Adna R. Chaffee (once commander at Fort Huachuca) and made up of soldiers and marines, landed at Tietsin on July 13, 1900. There they joined men from Britain, Japan, France, Russia, Germany, Austria, and Italy in a march on Peking where the legations of these countries were besieged. The force occupied the Chinese capital on August 15 and a small contingent remained as part of an international protection force until 1938.

The Army, which only a few years before had garrisoned the American West, was now stationed around the world. This shows a shift in American policy from the isolationism of the 19th century to a gradually increasing involvement in world affairs. The Army's new mission of protecting American interests abroad would require reorganization and modernization.

In 1911, internal problems in Mexico and border incidents caused the U.S. to strengthen its border patrols and outposts. Francisco "Pancho" Villa, resenting President Wilson's recognition of the Carranza government, against which he was in rebellion, attacked Columbus, New Mexico, on March 9, 1916, killing many Americans and destroying property. President Wilson ordered Brig. Gen. John J. Pershing to assist the Mexican government in capturing Villa. Pershing assembled a force, including Fort Huachuca's 10th Cavalry, and pursued Villa for several months over hundreds of miles. Although he did not come to grips with Villa, skirmishes with Mexican government troops were not uncommon. The Carranza regime protested the presence of American troops on Mexican



soil. The situation in Europe necessitated the withdrawal of the Pershing force. The search for Villa was inconclusive, but his band was effectively dispersed and the expedition served as a training maneuver, bringing to light deficiencies that could be corrected before the Army was committed to a World War in Europe.

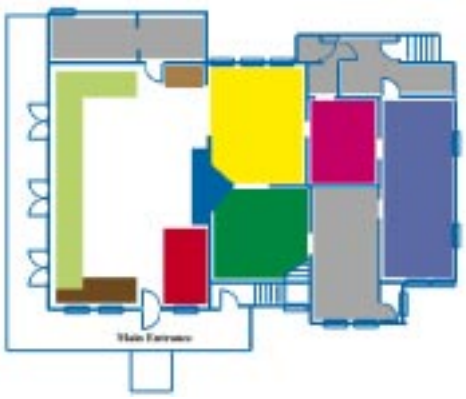
A submarine attack on the British liner *Lusitania* cost 128 American lives and swayed public opinion in the U.S. toward joining the Allies in defeating the Germans. In 1917 German Foreign Secretary Arthur Zimmerman proposed to Mexico that she ally herself with Germany and declare was on the United States. Her reward would be regaining her lost territory of Texas, New Mexico, and Arizona. This message, intercepted and decoded by the British, was revealed in February 1917. More American ships were lost to German U-boats. On April 6, 1917, Congress declared war on Germany.

General John J. Pershing was given command of the American Expeditionary Forces which were welcomed enthusiastically in France by hard-pressed British and French troops. The AEF grew in strength to 43 divisions by war's end in 1918. The gallantry of the American fighting man in France was proven time and again. Four infantry regiments manned by black soldiers, the 369th, 370th, 371st and 372d, served on the line with the French army and were awarded the French Croix de Guerre. These regiments would later become part of the 92d and 93d Divisions formed at Fort Huachuca.

Twilight of the Horse Cavalry

With the Apache campaigns ended, the Cavalry post of Fort Huachuca entered a new period of Army history. Marked by a change in the style and color of the uniform, the new century brought a change in warfare and diminishing importance for the mounted soldier. The horse cavalryman played out his final act at Fort Huachuca, patrolling a tense border and training for a role he would not be asked to play in future conflicts.

General Pershing's 1916 sortie into Mexico after the bandit Pancho Villa was the last large-scale maneuver by mounted troops. The Punitive Expedition massed cavalrymen from the 5th, 6th, 7th, Huachuca's 10th, 11th, 12th, and 13th Cavalry regiments along with infantry and supporting units. Hampered by geography and Mexican government resistance, the chase was inconclusive.



The Cavalry proved of little value in the trench warfare of World War I. Motorized transport, barbed wire, and the new weapons wrought in World War I revolutionized land warfare. The Cavalry's function could be performed more efficiently by the tank and airplane. The development of the modern rifle, with its flat trajectory and long range, and the advent of rapid fire field guns of tremendous power made frontal assaults, even by infantry, things of the past.

Memories of past glories and mounted sports were all that re-

mained to the horse solders of the 10th Cavalry in the 1920s at Fort Huachuca. Horsemanship was still highly prized and the troopers sharpened their riding skills by participating in equestrian events and polo matches. The polo team from Fort Huachuca was among the Army's best and won many trophies in Army-wide competition. The 10th Cavalry was reassigned to other posts in 1931, ushering out the era of the horse Cavalry at Fort Huachuca.

Twilight of the Horse Cavalry

Uniforms. In 1899 regulations, the first drab, earth-colored cloth was introduced into the U.S. Army uniform. Volunteers in the Spanish-American War in Cuba were first dressed in khaki uniforms which were thought to make a less conspicuous target than the traditional blue. Blue dress uniforms remained but the Prussian-style dress helmets and ornamental braid were replaced by simple caps and unadorned service coats.

In 1902 the chevrons were reversed so that the points were up. In 1905 the "Montana" peak hat was substituted for the old slouch campaign hat.

The service uniform of the 1911 pattern consisted of olive drab breeches, shirt, and service coat. Shirts without coats were often worn in the field. This uniform shows a British influence. Woolen material was prescribed for winter and cotton for the summer. Chevrons after 1911 were olive drab except on the dress uniforms which were still the color of the branch of service. A button-style collar insignia was worn by enlisted men on the standup collar of the 1911 uniform. This is the uniform in which the Cavalry patrolled the border with Mexico and embarked upon the 1916 Punitive Expedition. The same uniforms, equipment, and weapons were used by the American Expeditionary Force in France during World War I. Men at Fort Huachuca continued to wear the 1905 campaign hat, but troops in France wore a steel trench helmet—a British "basin"-pattern helmet painted a drab color. A wool OD "overseas" cap replaced the "Montana" campaign hat in 1917. It was patterned after a British cap. The enlisted infantry replaced their canvas gaiters with OD wool puttees or wraps. Officers continued to wear leather leggings. Cavalrymen during this period wore canvas leggings reinforced with leather. In 1918 divisional shoulder patches were authorized for wear. Also adopted in France by the American Expeditionary Force was the Sam Browne belt, again borrowed from the British.

Enlisted men began wearing bronze collar disc insignia in 1907 to replace the crossed rifles, sabers, etc. they had worn on the collar since 1901. The 1907 pattern called for the letters "US" on the right collar disc and the branch insignia on the left, with the regimental number above and the company letter below. This style would last until 1917 when the regimental number was taken off the left disc and placed below the "US" on the right disc.

Weapons. The War with Spain in 1898 revealed deficiencies in weaponry and a lag in technology which the Army sought to correct in the ensuing years. The Krag-Jorgenson rifle, which had been adopted in 1892, was made obsolete by high-velocity, low-trajectory, clip-loading rifles which were capable of firing at a sustained high rate. The Krag-Jorgenson was replaced by the 1903 Springfield rifle which incorporated the latest innovations. It had a bolt action and was fed by a magazine. The old rod bayonet had demonstrated in the 1898 campaign that it was too flimsy. It was replaced in 1905 with a knife bayonet which was sixteen inches long and weighed one pound. The M1911 Colt .45 automatic pistol supplanted the .38 caliber revolver which had shown itself incapable of stopping a charging Moro warrior in the Philippines.

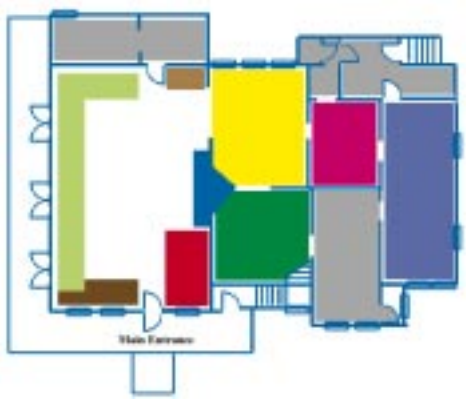
The M1892 .38 caliber Colt New Army Revolver was intended to be a modernization of the M1873 Army Colt revolver and was modeled after a design incorporated in the M1889 Navy Revolver. The cylinder rotated counterclockwise, a design flaw that caused a problem of alingment between the cylinder and the barrel when the cylinder became worn. With various minor modifications, it was issued as the M1894, M1895, M1896, M1901, M1903, M1908, and in two Smith and Wesson models, the M1899 and M1902.

The M1909 Colt New Service .45 caliber was issued to all services over the next two years, some 21,000 being produced.

The M15 .45 caliber General Officer's Pistol was a smaller version of the M1911A1 Colt and was issued in 1972 to replace the Colt .380 caliber Pocket Automatic.

The M1917 .45 caliber Smith and Wesson revolver was modified to accept the .45 cartridge used by the M1911 Automatic and produced to meet the wartime demands of the Army which ordered 153,000 of them. Many of the weapons survived into World War II. Another 150,000 modified versions of the "New Service" M1897 were also purchased and became known as the M1917 .45 caliber Colt New Service revolvers.

The most important development in weapons technology was the machine gun. It was responsible for 20th century tactics. Although the Army had employed manually operated Gatling guns in the Indian Wars and in the Spanish-American War, it wasn't until American inventors such as Hiram Maxim, John Browning and Isaac N. Lewis developed automatic machine guns that its impact was realized. Their designs became models for machine guns in all major armies.



M1904 McClellan saddle. This saddle differed chiefly from the M1885 McClellan in color (1902 regulations changed all leather from black to russet), in the new quarter straps which buckled to straps affixed to the saddle tree, and in the straight sides of the tree. Although slight changes were made in 1928, this saddle was the basic model until the horse Cavalry was discontinued. (0925)

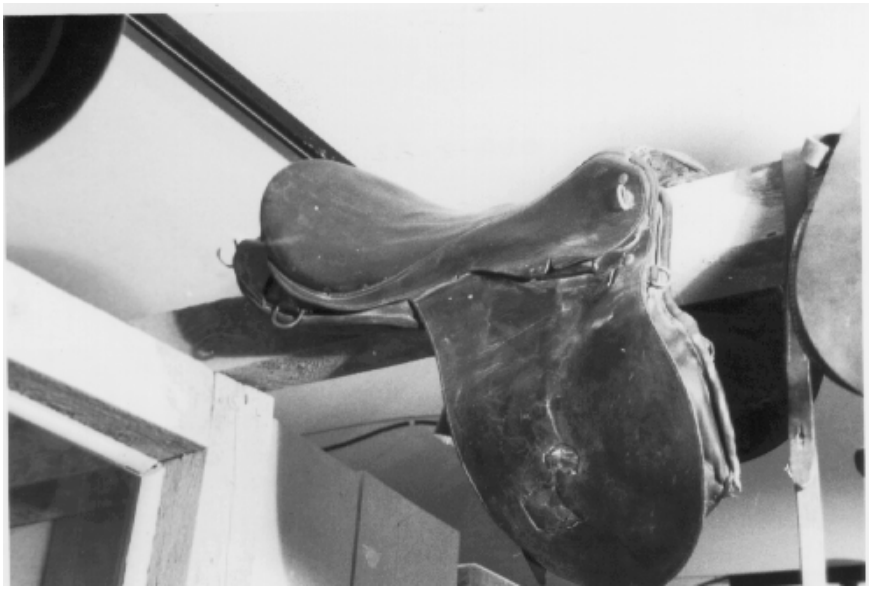
Bridle. The absence of a U.S. Army rosette would indicate it is a civilian bridle patterned after the M1909 Cavalry bridle. It has a nickel M1909 curb bit. It is displayed here along with a M1902 watering bridle. (1135)

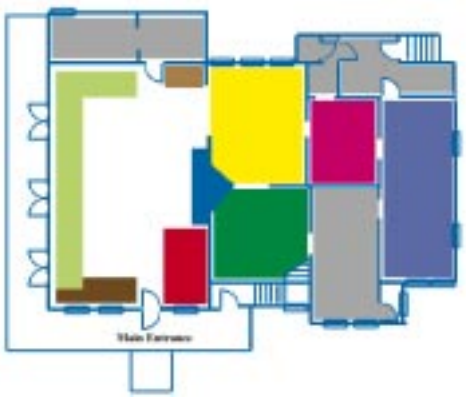
M1902 bugle. (1140)

M1885 wooden stirrups. (1347)

10th Cavalry plaque. This distinctive insignia of the 10th Cavalry was made by Anna R. Russell. (2900)

M1916 officer's training saddle. A development of the 1910 Cavalry Equipment Board, it was designed solely for training at the Cavalry School. However, it was often purchased by officers and used until the M1936 Phillips saddle was prescribed. (3367)





M1917 officer's field saddle. An outgrowth of a cavalry equipment board convened in 1910, it was used by all mounted officers in the field until 1936. It was in that year that the Phillips cross-country model was introduced for officers. (3368) (Courtesy C. R. Weaver) (3415)

M1904 horse brush. (Courtesy Maj. Gen. B. H. Pochyla) (0802)

M1904 rifle scabbard. It was used for the M1903 Springfield or the M1896 Krag-Jorgenson magazine rifles. (1228)

Rope girth. A 14-strand rope girth was used with pack saddles. The divided ends allow for better support and spreading of the load. (1348)

Water barrel, 6-gallon. It was packed on mules to provide water to troops in the field. (2129)

Wooden pack saddle. (2155)

Mexican currency, issued provisionally during a period of revolution in Mexico (1910-1915). (2215)

M1917 officer's field saddle. It has been fitted with a horn on the cantle, possibly to accommodate the harness from an artillery carriage. (2388)

M1904 stirrups with russet leather hoods. The 1904 stirrups were thicker and heavier than the M1885 stirrups. (2399)

Circa 1912 canvas watering bucket. (2426)

Circa 1904 canvas watering bucket. (2841)

M1904 saddlebags. (2905)

M1912 stirrups. (3368)

M1904 saddlebag, cut and modified so that it could be attached to the M1917 officer's field saddle. (Donated in the memory of Wilson Thompson) (3819)

M1912 cartridge box. (0166)

M1905 service hat. The yellow hat cord indicates an enlisted cavalryman. Officers wore black and gold cords and warrant officers wore silver and black. (0725)

M1912 enlisted garrison belt. (Courtesy MSgt. Beauford Meeks, 25th Inf) (1018)

M1917 leggings. For cavalrymen only, these canvas leggings

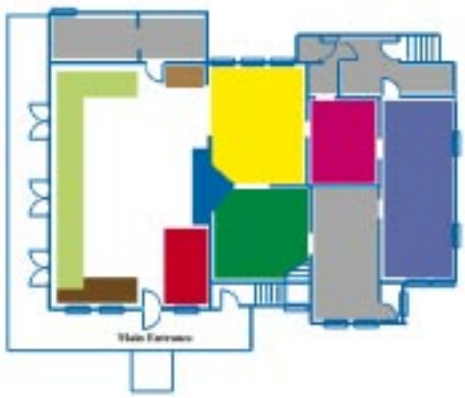
are faced with russet leather. (Courtesy F. Little) (1034)

M1918 double magazine pockets, for .45 magazines. (Courtesy Msgt. F. Little) (1040)

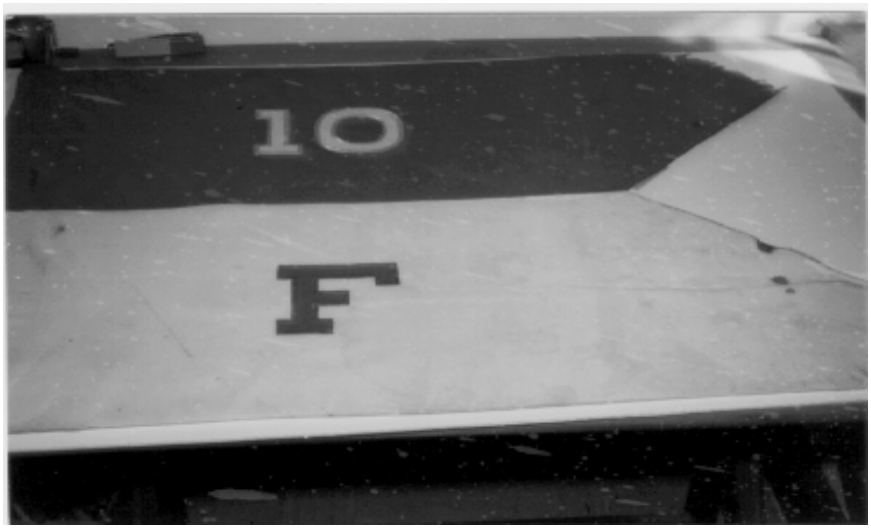
M1911 service uniform. At Fort Huachuca in 1919, an enlisted man on duty under arms in garrison would wear this uniform. His button-type collar insignia, prescribed in 1911, means he is assigned to the Machine Gun Troop, 10th Cavalry. He is wearing the service hat which was worn only in the continental United States (soldiers in France wore the steel helmet) and the leather-reinforced canvas leggings, first called for in 1917. On his right sleeve he has sergeant's chevrons. On his left sleeve, near the cuff, he wears two war-service chevrons, each standing for six months overseas service. This uniform belonged to James J. Flynn who served in the AEF from 1917 to 1919. (Courtesy Spec. 5 John Flynn) (1108)

M1912 Sharpshooter qualification badges. He has earned sharpshooter badges for both rifle and pistol. (1198)

M1913 Cavalry sword. Called the "Patton" saber after its designer George S. Patton, it is intended to be used as a thrusting weapon rather than a slashing saber. The saber and a webbed khaki scabbard are attached to the cavalryman's saddle. They were not worn with the uniform. It was discontinued as a Cavalry weapon in 1934. (2311)



Guidon of F Troop, 10th Cavalry. (2899)



M1903 Springfield rifle. A .30 caliber bolt-action rifle. The Spanish-American War made clear the necessity for the ability to deliver a high rate, sustained fire in the urgency to gain fire superiority. In 1900 the Ordnance Department recommended the adoption of a new arm based on the Mauser system. Manufacturing rights for this bolt action mechanism were purchased from the German Mauser patent owners for $200,000. The M1903, with some modifications, was used through World War II. This weapon is one of the 291,000 built at Rock Island Arsenal between 1905 and 1918. (3009)

1913 Edition of Small Arms Firing Manual. (3229)

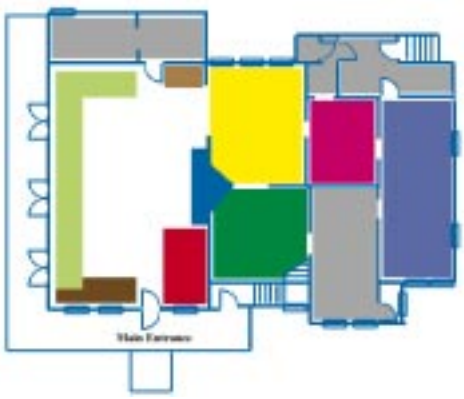
Photos of military maneuvers for use with a stereopticon viewer. (3230)

Circa 1918 holster, for .45 automatic pistol, russet leather. (3468)

Rosewood regimental field desk, used by Brig. Gen. Alvord Van Pattem Anderson when he was commanding the 1st Cavalry at Douglas, Arizona. The desk has a leather case. (3683)

M1912 wool olive drab breeches. (Courtesy G. Garrison) (0173)

Steel helmet, World War I. (0394)



Circa 1918 gas mask issued to Deryl Rising in 1918. (Courtesy D. Willis) (1077)

Gas Mask carrier. (Courtesy D. Willis) (1078)

The R. F. K. Gas Mask was a box respirator modified from the British mask by Ralph R. Richardson, E. L. Flory, and Waldemar Kops of the Chemical Warfare Service. It was the first American gas mask. American troops wore French and British masks earlier in World War I. It consisted of a canister, a fabric face piece with nose clip, mouth piece, and hosetube, and a carrier for the two units. It provided adequate protection against the agents used on the Western Front, but was uncomfortable if worn for long periods.

Circa 1918 canvas wallet containing a French-English dictionary. Issued to Europe-bound American soldiers in 1918. (1079)

1914 edition of Manual of Interior Guard Duty. (1080)

Circa 1917 steel helmet, adopted from a British patterns. (1081) (2440)

M1912 pistol belt, with M1910 first aid pouch. (Courtesy Barbara Hostetter) (2166)

Circa 1918 trench knife with brass knuckled grip, used in World War I for hand-to-hand combat. (2449)

M1910 meat can, with knife, fork and spoon. (2701)

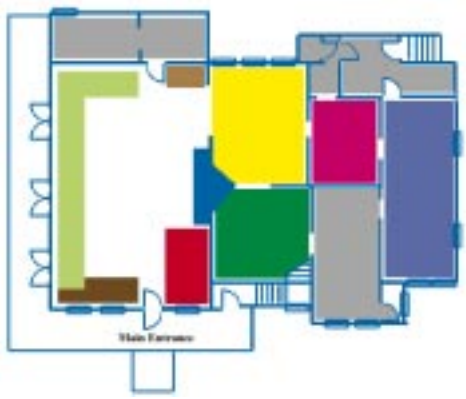
Circa 1918 holster. This russet leather holster was custom made for Maj. Gen. Thomas H. Green, Staff Judge Advocate of the Army from 1945-49. He was stationed in Arizona in 1913. (Courtesy R. T. Green) (3046)

Circa 1917 periscope, World War I model used to see over the top of trenches without exposing oneself to fire. (3080)

M1912 wool OD coat. Combat uniform in Europe included steel helmet, gas mask, and pistol or cartridge belt. This sergeant was with A Company, 61st Infantry and has two war-service chevrons (one for each six months overseas service) on his lower left sleeve. (Courtesy W. R. Nicholson) (3105)

M1912 wool wraps or puttees. (3107)

M1912 service uniform for mounted officer in garrison under arms. His insignia informs us that he is a captain of cavalry and assigned to Machine Gun Troop, 56th Cavalry. He wears the Army Occupation of Germany Medal (World War I), the Army Mexican Service Medal, and the World War I Victory Medal. The officer represents the uniform at Fort Huachuca in 1925. (0479)



M1912 Cavalry officer's dress boot with nickel-plated spurs. (Courtesy W. Knabe) (0575)

M1912 stirrups. (0903)

M1902 service hat, with officer's black and gold braided hat cord. (Courtesy S. A. Merritt) (2105)

M1917 officer's field saddle. (2390)

M1921 officer's belt. Made of russet leather, it was a modification of the "Sam Browne" belts worn in France by officers of the American Expeditionary Force. It has a dress saber chain attachment (M1924), leather magazine pockets for .45 pistol clips, and a holster for the .45. (2637)

Polo mallets, used by Col. Isaac S. Martin, while he was stationed at Fort Huachuca with the 10th Cavalry. (Courtesy I. S. Martin) (2804)

Polo balls, made in India, were used by Colonel Martin at Fort Huachuca. (Courtesy I. S. Martin). (2806)

Circa 1904 saddlecloth. (Repro)

M1885 bridle. (Repro) (Courtesy B Troop, 4th Cavalry, Memorial)

M1912 leather leggings, worn by cavalrymen until 1917. (Courtesy W. Knabe) (0574)

Circa 1918 wall telephone built by Stromberg Carlson.

CATALOG

(1212)

Water barrel, used to pack water on mules while on cavalry scouts. (2129)

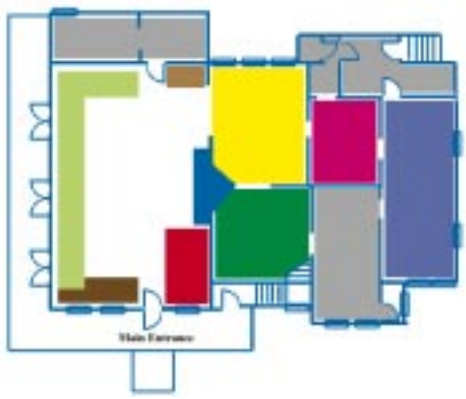
M1912 service uniforms, wool olive drab shirts and breeches. In the summer these uniforms were worn without the service coat. (2190) (2191)

Garrison shoe. (Repro)

Lucky Strike cigarette tin. (2224)

Circa 1918 overseas cap, modelled after a French cap, it was later to become the field or garrison cap and in 1940 it was authorized for wear in the U. S. Then a cord was added in the color of the wearer's branch of service. Officers wore yellow cords until 1940 when the cord was changed to a gold and black braid. In 1942 it was required that officers wear their rank insignia on the garrison cap instead of the regimental insignia they had been wearing since 1941. (2473)

M1917 Cavalry leggings, faced with russet leather. (2475)



M1912 service coats, one with corporal's stripes, one with sergeant's stripes. Since 1902 the chevrons were worn with the points up. (Courtesy H. M. Steward) (2479) (2480)

Circa 1906 Thomas A. Edison phonograph. (3205)
Record cylinders for the Edison phonograph. (3206)
M1902 campaign hat, worn in the continental United States only. (3320)
Circa 1907 cygnet speaker, it was designed to give better tone and projected volume. It was used with either a radio or phonograph. (3698)

World War II Training Base

As Hitler attacked through Europe's Low Countries in 1940, Army planners in Washington drew up a crash construction program to shelter 1,200,000 men at camps across the U.S. Work on these buildings began at Huachuca in late 1940 and the post was transformed into an Infantry Division training center. From 1941-44 the fort's newly built ranges, barracks, offices and service clubs became home for over 25,000 people.

(The following quotes are taken from interviews appearing in *The Invisible Soldier: The Experience of the Black Soldier, World War II*, Mary Penick Motley, ed., Wayne State University Press, 1975)

"In 1941 the Army reactivated the 368th at Fort Huachuca. The original 368th had been in World War I. I was chosen as a member of the cadre which consisted of a First Sergeant, four platoon sergeants, a supply sergeant, and a company clerk. This was the beginning of the 93rd Division at Huachuca down below the railroad tracks."

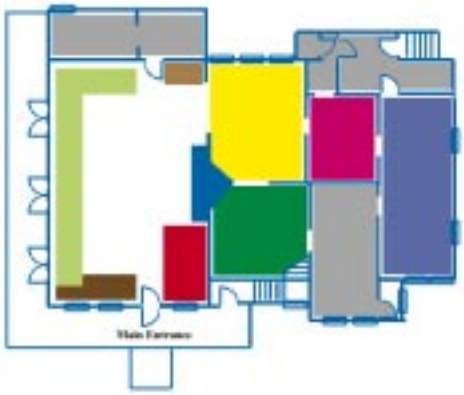
—1st Lt. George Looney, 368th Infantry

"I was sent to the 365th Infantry, 92nd Division, at Fort Huachuca. Many persons did not like Huachuca. I did. I found it a beautiful place. I liked the desert and the surrounding mountains. I was undoubtedly the exception rather than the rule in enjoying the physical isolation of this post."

—Lt. Wade McCree, Jr., 365th Infantry

"The 92nd returned to Fort Huachuca (from maneuvers in Louisiana) and I saw the infamous place for the first time. The training facilities for the kind of warfare we were going to have to conduct were ideal. It had mountains, desert, everything. All of the various teams, infantry, artillery and tanks, had the terrain they required at Huachuca."

—Capt. Hondon Hargrove, 597th FA Battalion



World War II Units

In December of 1942, the first Women's Army Auxiliary Corps detachments to be sent to the field arrived at Fort Huachuca. The 180 women of the 32d and 33d WAAC companies assumed duties in the post headquarters, supporting the 93rd Division.

The 93rd and 92nd Infantry Divisions were triangular divi-

sions, that is, they each had three regiments. As were all infantry divisions by 1944, these divisions were composed of nine infantry battalions (three battalions to a regiment). The standard battalion would have 871 men armed with rifles or carbines, plus 47 machine guns, 9 60mm mortars, and 6 81mm mortars. The division artillery consisted of 36 105mm howitzers and 12 155mm howitzers.

The 93d Infantry Division was composed of the 25th, 368th and 369th Infantry Regiments and the 593rd, 594th, 595th and 596th Field Artillery Battalions.

The 92nd Infantry was made up of the 365th, 370th and 371st Infantry Regiments, and the 597th, 598th, 599th and 600th Field Artillery Battalions.

World War II Training Base

Uniforms. At the outset of World War II, the American soldier's uniform was a slightly modified version of the olive drab woolen service coat and breeches that were worn in World War I. The differences were a lapel-type collar, which replaced the "choker" or standing collar in 1926, and a four-in-hand necktie. In 1939 trousers replaced the breeches, and canvas leggings took the place of the infantryman's woolen, spiral wraps. A black, wool, worsted tie was substituted for the silk tie in 1940, and, by the end of 1941, it was replaced by an olive drab mohair tie.

As the war progressed, lessons were learned about the suitability of the uniform to combat conditions, which ranged from the tropical heat and humidity of the Pacific jungles to the arctic cold of Alaska and northern Europe. Uniforms designed for specific climates and uses proliferated. There were the one- and two-piece herringbone fatigues or work suits, desert suits, jungle suits, protective suits, and camouflage uniforms. Special uniforms were designed for aviators, paratroopers, armored (mounted) forces, ski troops, mountain troops, and bakers and cooks. By 1942, however, a review of combat uniforms concluded that a single design would be preferable, except in those instances of extreme climates. A trend toward standardization began for field uniforms. All purpose items, such as field jackets, replaced several special purpose items, such as coats, jackets, sweaters, and liners. The wool serge, cotton khaki, and herringbone twill developed before 1939 began to be replaced by wind-resistant poplin (1942), 9-ounce sateen, and 9-ounce, wind-resistant, oxford cloth (1945).

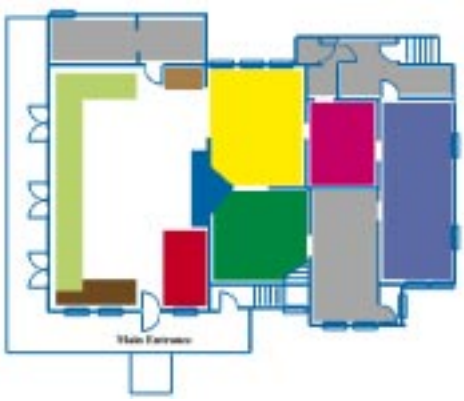
The enlisted infantryman would have four basic uniforms: The

field service uniform, a work or fatigue uniform, a winter garrison service uniform, and a summer garrison service uniform. His *field service* uniform consisted of steel helmet, wool OD shirt, combat suspenders, pistol or cartridge belt, wool OD trousers, canvas leggings, and brown leather service shoes. The *fatigue uniform* became the *summer combat uniform* and was the year-round combat uniform in the Pacific. It was a herringbone twill shirt, trousers, canvas leggings, and combat boots. It was worn with web field gear and helmet. His *winter garrison service* uniform was made up of a service or "saucer" cap (or a garrison cap), a wool OD coat with necktie, wool OD trousers, and service shoes. An overcoat could be worn with this uniform. A wool shirt and tie were sometimes worn without the coat. His *summer garrison service* uniform would be khaki-colored and consist of a cotton service cap or cotton garrison cap, cotton shirt with necktie and trousers, canvas leggings, and a brown service shoe. Web field gear could be prescribed for wear with the cotton uniform.

The Infantry officer would have three service uniforms: Wool OD with coat, wool OD with OD shirt, and khaki cotton with cotton shirt. To these he would add web field gear when in combat or field training. His one work uniform was of OD herringbone twill. He would also have as many as six different dress uniforms for special occasions. The M1921 officer's belt (Sam Browne belt) or a cloth belt was worn with the service coat when not under arms or on field duty.

In 1941 the collar discs for enlisted men were changed from a one-piece stamped bronze to a two-piece brass disc (i.e., the "US" and branch insignia could be removed from the disc). The right disc had the letters "US" with the regimental number below it, as had been the case since 1917. The company letter had appeared below the branch insignia on the left disc. Now it was eliminated.

Weapons. Some of the standard World War II Infantry weapons were developed many years earlier and were still regarded as reliable for combat in 1940. The M1903 Springfield rifle, the M1911 .45 caliber pistol, the M1918 Browning automatic rifle, and the M1917 .30 caliber Browning heavy machine gun were some of the widely used older weapons. Comparatively new weapons were the semiautomatic M1936 M1 Garand rifle, the M1941 M1 carbine, the M1938 Thompson submachine gun, and its replacement, the M1944 M3 submachine gun.



The M1942 .45 caliber "Liberator" or "OSS" Pistol was a tiny, single-shot weapon that could be produced cheaply and in large numbers (1,000,000 were made in 1942). It was intended for use

by partisan forces and agents behind enemy lines.

The M1918 Browning Automatic Rifle or BAR was a machine gun as well as a rifle and used in both World Wars. It was gas-operated, .30 caliber, air-cooled, magazine-fed, and fully or semi-automatic. It could be fired from the shoulder or, when used with a shoulder sling, fired from the waist. Stocks left over from World War I were used until loans to the British and new requirements necessitated the production of 168,000 BARs in 1943. These were only slightly changed from the 1918 design.

The M1928A1 .45 caliber Thompson submachine gun could be fired as a semiautomatic or fully automatic by switching a selector on the left side of the receiver. It was fed with a 50-round drum magazine or 20 to 30-round box magazine. Designed by Brig. Gen. John T. Thompson of the Ordnance Department, the gun became standardized in 1938 as the .45 M1928A1. It was used by the British, French, Canadian and American soldiers during World War II. Heavy and expensive to produce, the Thompson was replaced by first the M2 and then the M3 submachine gun.

The submachine gun .45 caliber M3 was adopted in 1942 and became known as the "grease gun" because of its resemblance to that mechanic's tool. It was all metal, easily disassembled, and convertible to the 9mm as well as the .45 cartridge. It was also referred to as a machine pistol. It had a maximum range of 100 yards and could fire 70 rounds a minute.

The Bazooka Rocket Launcher was called by the Chief of Ordnance in 1943 the "most impressive small arms development of the year." It was a 54-inch steel tube of 2.36-inch diameter, designed to be operated by two men. It was open at both ends and, by means of hand grips, a trigger and a simple sight, enabled the infantryman to launch anti-tank rockets. Battlefield use determined the need for adding back-blast deflectors and piano wire wrapped reinforcement to protect against exploding within the tube. Generators replaced batteries in the firing mechanism and the forward hand grip was eliminated. Finally in late 1943 the take-apart M9 launcher was produced.

As important as the bazooka was the 57mm recoilless rifle which put artillery fire power in the hands of the infantryman. They were light enough to fire artillery-type explosive shells from the shoulder. The 75mm piece was more nearly an artillery piece. These did not reach the field until the war was almost over.

The 60mm and 81mm mortars were the basic support weapon in

the infantry division. The 60mm weighed 42 pounds and could send 30 3-pound shells 800 yards every minute. The 81mm could fire 45 7-pound shells 3,000 yards a minute. It weighed 141 pounds.

The standard artillery pieces in the division Artillery were the 105mm and 155mm howitzers.

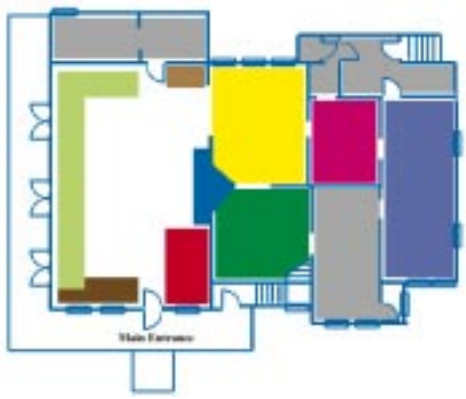
Equipment. As was the case with clothing, the equipment carried by the soldier of World War II was essentially the same that his World War I counterpart had carried. This was due mainly to the low budget priority given military research and development during the intervening years and the large stocks left over from 1918. It wasn't until the war was well underway that deficiencies surfaced and studies were made to improve each item of equipment.

Some of the most notable developments of World War II were the Jeep and the 2 1/2-ton, 6x6 truck. The jungle pack was typical of the specialized gear needed in a global war. Single items were designed to replace several old items. For instance a combination pick and intrenching tool replaced the old shovel, pick-mattock, and ax. The trend was toward standardization, simplification and weight reduction. The problems were the constant shortage of critical materials such as aluminum and cotton duck.

25th Infantry signboard, (2419)

M1938 canvas leggings, Dismounted, olive drab. This legging was used by all enlisted men. It is made of No. 6 duck, and measures 12 3/4" in height. It is laced by means of hooks and eyelets fastened to the service shoe, by means of a webbing strap, furnished in four sizes (R1 to R4) in olive green color. (Courtesy Mrs. Ila Healy) (0138) (Courtesy Lt. Col. F. H. Shepardson) (2702)

M1940 black wool worsted tie. It replaced the silk tie and was replaced in 1941 by an olive drab mohair tie. (1011)



Web belt with brass buckle. (Courtesy Mrs. Carl Bruck) (1031)
M1936 pistol belt. (Courtesy 1st Sgt. F. Little) (1038)
M1917A1 Browning .30 caliber heavy machine gun. Designed by John Browning, this machine gun was water-cooled, belt-fed and recoil operated. After an impressive demonstration of the weapon's capabilities by Browning himself, the Army adopted it in 1917 and with a slight modification, was the standard ground gun until after World War II. It fires 450 to 600 rounds per minute at a muzzle velocity of 2,800 feet per second, and weighs 93 pounds with tripod and water-filled jacket. Its effective range was 1,800 yards. The M1917 Browning heavy machine gun was one of the standard World War I weapons that was carried over to World War II and beyond. It was given new designations as it changed from water-cooled (M1917A1) to air-cooled (M1919A4). The .50 caliber Browning machine gun was redesigned in 1933 so that it could be mounted on tanks and aircraft or converted to antiaircraft use. Both Browning machine guns were world renowned. The .50 caliber aircraft gun performed unfailingly in cold or hot climate and contributed greatly to allied air victories. (1360)

Fatigue uniform or summer combat uniform. Herringbone twill shirt and trousers are worn here with the **M1941 field jacket**. (1382)
Type I service shoe. In 1912 the Munson Board recommended a garrison or peacetime shoe to be known as the "Munson" boot. A stronger marching shoe appeared in 1917 but it did not meet the requirements of a combat boot. The 1918 "Pershing" boot was designed to meet the needs of trench warfare in Europe. It was a hobnailed, rough-out shoe. After World War I, the boot had to be redesigned to fulfill a peacetime role in the garrison. Since it must look better and be more comfortable, the new boot had the grain side out, the uppers were polished, and leather soles and heels were added. The shoe was known

as the **Type I service shoe** and was the only shoe procured until 1941. As the U.S. Army entered World War II, it faced the same problem it did in 1918—the lack of a durable and water-proof combat shoe. A Type II shoe added a rubber tap and heel. In 1942 a **Type III shoe** was introduced which was six inches high and had all rubber soles and heels. Its flesh-out upper leather made it more flexible, easier to break in, and water-proof. Next, a 10-inch high combat boot was produced. It looked the same as the Type III shoe, but its buckle top eliminated the need to wear canvas leggings. The Type III service shoe and the buckled combat boot still posed problems in winter conditions. For this reason rubber overshoes and shoepacs were designed to be worn over the service shoe or combat boot. (1383) (1386)

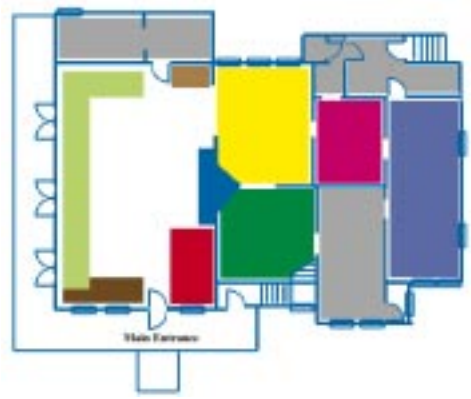
M1936 belt suspenders, M1936 pistol belt, M1923 magazine pocket, double web, EM, and **M1924 first aid pouch**. (1384)

Field uniform, of olive drab wool serge shirt and trousers. This was the winter combat uniform and the training uniform at Fort Huachuca. (1385)

M1923 cartridge belt, .30 caliber, dismounted. (1387)

Helmet, steel, M1, Complete. The "tin hat" style helmet of World War I (or M1917) was issued at the beginning of World War II. However, it did not afford protection from fragments ricocheting from below eye-level, nor was it comfortable. The Ordnance Department developed a new helmet in 1942 which was pot-shaped, steel, and fitted with a liner which had an adjustable head-band so that the steel pot and liner together would fit comfortably on each wearer's head. Together they weighed about 3 pounds and were always worn in combat. The liner alone was sometimes worn in Pacific Theater combat and in place of the garrison cap in all theaters. The idea for the liner and suspension was first patented by John T. Riddell, who manufactured football helmets. The M1 helmet and liner markedly improved the soldier's safety and comfort. It would be the standard helmet until the early 1980's. (2004) (2485)

EE-8 telephone, Type 2. This was a battery-powered phone and was the answer to a general need among all components of the service for a superior military field instrument, light weight, rugged, and easily maintained. It was standardized in 1932, five years before it could be procured. It was one of the items developed well in advance of World War II which proved itself in that conflict. It was lighter than its predecessor, the World War I EE-5, and had better maximum range. (2293)



M1910 canteen and cup, with **M1941 cover**. (Courtesy Msgt. Hatfield) (2838) (3026)

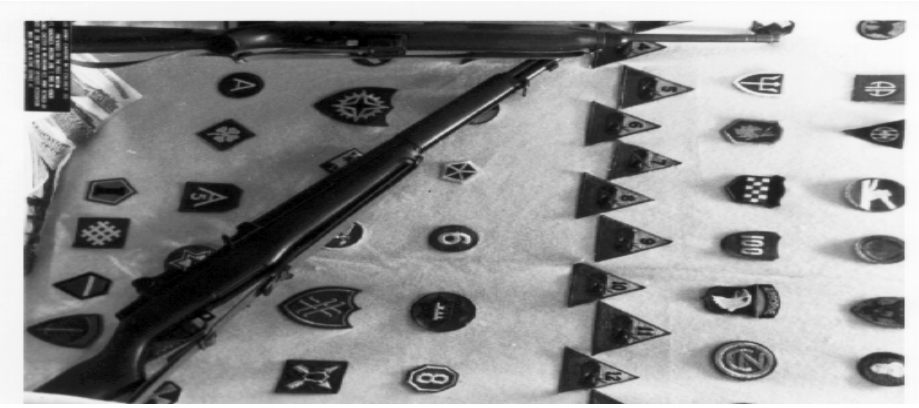
Carrier for M1A2-9A1-4 gas mask. (Courtesy C. Walp) (3369) **Women's Army Auxiliary Corps (WAAC) uniform**. In 1942 when the WAAC was formed by Congress, it was necessary to quickly develop a uniform design. The result was a six-gore skirt and semi-fitted, single-breasted jacket with four buttons down the front, and a detachable belt with a cloth-covered, plastic buckle. The jacket had two diagonal slash pockets and two breast pockets with flaps. A cap was adopted but replaced in 1945 by a garrison cap. The Army regulation tie was worn with the jacket. Also included in the WAAC uniform was an overcoat and raincoat. A two-piece herringbone twill was worn for work details. First issued in July 1942, the new uniform met with much criticism. Improvements were continually made during the war on this basic design. After this initial uniform, many items of apparel were added, paralleling the development of the male uniform. Combat uniforms were issued to Women's Army Corps members, khaki slacks and shirts, and, eventually, a combat boot. Special uniforms were issued to Army nurses.

This WAAC member wears the traditional "US" insignia on the right lapel and the head of Pallas Athene on the left. Athene was chosen because she was a goddess associated with an impressive variety of womanly virtues and no vices, either womanly or godlike. She was the goddess of handicrafts, wise in industries of peace and arts of war, and also the goddess of storms and battle who led through victory to peace and prosperity. The eagle for the cap insignia was less intricate than the Army eagle and was later to be familiarly known to WAACs, for reasons closely connected with its appearance, as "the buzzard." Since Army buttons could not be used for an auxiliary corps, the WAAC eagle was also imprinted on plastic buttons. She is a technician fifth grade or T/5. The technician grade was authorized early in World War II so that specialists could be promoted and earn more money without assuming the leadership responsibilities of the NCO. A technician had no author-

ity over lower grades. A technician fifth grade had the letter "T" below corporal chevrons, a T/4 had the letter "T" below sergeant stripes, a T/3 had a "T" between staff sergeant stripes, and a T/2 had a "T" between three chevrons and two rockers. (1388)

Shoes, service, women's low. Described by the Quartermaster Catalog as "stylish brown oxfords built for comfort. They have 1 1/2-inch heels, rubber lifts and leather soles." (1389)

M1 Rifle, .30 caliber, semi-automatic. It was universally known as the "Garand" after its designer, John C. Garand, chief civilian engineer at Springfield Armory. It was gas-operated, weighed about 9 1/2 pounds, and was fed by an eight-round clip. Its semi-automatic feature meant that a soldier could repeatedly (twice as fast as the M1903 Springfield) fire eight aimed shots by squeezing the trigger for each shot. Before becoming standard in 1936, the M1 was the subject of grueling tests by the Infantry, Cavalry, and the Marines. The Garand was best among the semi-automatics. (Interestingly, the old M1903 Springfield proved better in accuracy, ruggedness and dependability, but could not compete with the firepower of the semi-automatic.) The M1 could fire 20 rounds per minute at an effective range of 500 yards. Production was made difficult by the fact that the M1 had 70 separate parts to be machined but the final result gave the American World War II soldier a decided advantage over his enemy, as no other major power had a good semi-automatic rifle. This is a rare first model. (0086)

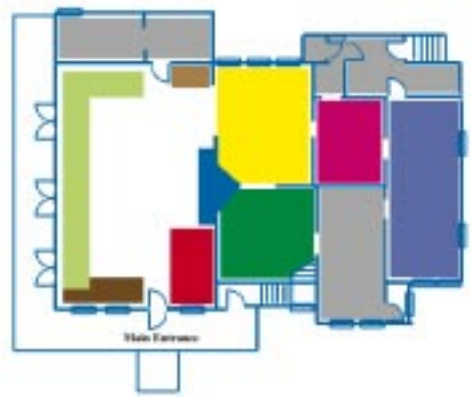


Bayonet and scabbard for M1 rifle. (1398)
1944 Louisiana Maneuvers souvenir. The 92d Infantry Division left Fort Huachuca in January 1944 for full-scale maneuvers in Louisiana. By June 1944 they would be on their way to the European Theater. (Courtesy Dr. G. Proctor) (1436)
Bronze Star medal (BSM). Authorized on 4 February 1944, the BSM was awarded to military who distinguished themselves by heroic or meritorious achievement in connection with military operations against an armed enemy. It was given to those who served after 7 December 1941 and whose achievement was lesser than that required for a Silver Star. This medal was awarded to Sgt. Gil Proctor, 92d Infantry Division. (1437)
Shoulder patches, Army Corps and Divisions from World War II. (2319)
Gillette issue razor. (Courtesy J. F. Leighton) (0083)
Personal sewing kit. (0181)

1943 footlocker. (0440)
Cap, garrison, khaki. The cotton summer cap issued to all troops.

(Courtesy B. Meeks) (1012)
M1910 can, meat. (Courtesy 1st Sgt. F. Little) with **M1926 knife, fork and spoon**. (1036)
M1910 pouch, first aid packet. (Courtesy F. Little.) (1039)
M1910 canteen and cup, M1910 canteen cover, dismounted. (Courtesy F. Little) (1039)
Shirt, summer worsted, khaki. (Courtesy E. Osborne) (1103)
Work suit, herringbone twill, one-piece, olive drab. (Donated in memory of Lt. Col. James G. Daniel) (1157)

Field combat boot, first introduced in 1944 to replace Type III shoe. (Donated in memory of Lt. Col. J. G. Daniel) (1012)
World War II dogtags. (1332)
M1 carbine, .30 caliber. One of the most popular weapons of World War II, it was known as the "Baby Garand." Like the rifle, it was gas-operated and semi-automatic but it weighed less than 6 pounds and was about 3 feet long. It was fed by a 15-cartridge magazine and had an effective range of 300 yards, four times the range of the .45 caliber pistol which it replaced. The M1 carbine was essentially a defensive weapon for service troops should they find themselves under attack. In early 1944 the carbine could be set for full automatic as well as semi-automatic. It was called the M2 carbine. Some M1's were modified for selective automatic fire. (Repro)
Fire extinguisher, brass. Used at Fort Huachuca in World War II. (1352)



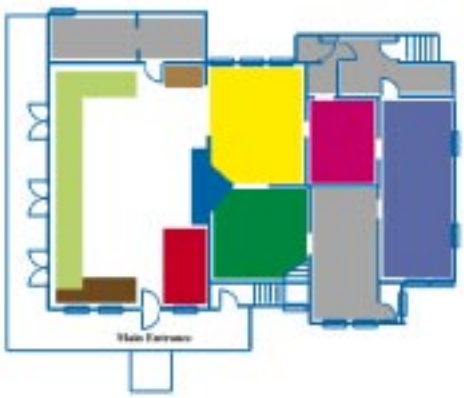
Cot, folding, steel, World War II period. (1363)

Drawers, wool, olive drab, 50 percent cotton, 50 percent wool, Class A, Type III. (1367)
Undershirt, cotton, olive drab. (1369)
Undershirt, cotton, olive drab, sleeveless. (1370)
M1938 raincoat, rubberized, dismounted. (1371)
Pins, tent, shelter, wood. (1372)
Tent, shelter, half. (1373)
Line, tent, shelter half, guy. (1374)
Poles, tent, shelter. (1375)
Scabbard, bayonet, M1 carbine. (1376)
M1943 intrenching shovel with carrier. It replaced the "T"-shaped grip of the M1910 shovel. The M1943 intrenching shovel, which had been hurriedly standardized and put into production,

was an adequate shovel, a good hoe, only a fair pick, and an indifferent ax. It was replaced in 1945. (1377)

M1923 Cartridge belt, .30 caliber, dismounted. (1378)
M1928 haversack, a field pack into which the enlisted man's individual equipment is rolled. It is provided with shoulder straps and has attaching tabs for the bayonet and intrenching tools. The carrier pack is used to increase its carrying capacity when necessary to carry a full pack. The M1928 Pack Carrier fastens to the bottom of the haversack. (1379)
Fatigue hat, herringbone twill. (1390)
M1941 jacket, field, olive drab. Made of water-repellant, windproof, cotton poplin with flannel lining and with button and zipper closure.
Shirt, flannel, olive drab, coat style. (1393)

Overcoat, wool, melton, olive drab, roll collar. (1394)



Shoes, service, Type II. A welt constructed shoe, blucher pattern, with 1/2 bellows tongue, outside counter pocket, full toe vamp, toe cap (without box toe), heavy rubber heel. The upper leather is best quality, heavy, Army russet shade, side leather fully chromed and vegetable retanned. The shoe is unlined. (1395)

Shoes, service, type II. (1396)
M1A2-9A1-4 gas mask, canister and case. This mask was first developed in 1919 and consisted of a face-piece and hosetube of rubber, covered on one side with elastic stockinette, a canister, and a carrier assembly. The trapezoidal face piece was fitted with circular eyepieces of laminated flat glass, deflectors to discharge air over the eyepieces to prevent fogging, an outlet valve, an angletube, and a head harness. The canister was of the radical flow type containing a filter unit for the removal of solid and liquid particles from incoming air and charcoal and soda lime absorbents for the disposal of gases. The mask was adopted

as standard in 1921 and then designated M-1-1-1. This service mask underwent improvements and remained the standard mask until 1940. The mask, then known as the M1A2-1A1-4, was still issued after the U. S. entered the war to deplete stocks. M2A2-9A2 Service Gas Mask, the World War II mask, was more comfortable, lighter and afforded better vision because it used a fully molded face blank with trapezoidal eyepieces closer to the eyes. This M2A2 facepiece eliminated the vulnerable chin seam, the angletube, separate deflectors and multiple metal parts in the eyepiece assembly. It could be mass produced. It gave more protection against toxic vapors because charcoal and impregnites in the canister were improved and their absorbing power increased. Despite being rugged and efficient, it was bulky and heavy and not suitable for World War II combat. Hence, the M5-11-7 Combat Gas Mask was standardized in July 1944. It was lighter (3 1/2 pounds), less cumbersome with a smaller, aluminum, rounded canister (M11) fitted to the left cheek cavity of the face blank. Both the filter and the carrier were waterproof. In fact the buoyancy of the carrier was said to have saved lives in amphibious operations. (Courtesy Capt. D. Watt) (2695)

Coat, wool serge, olive drab, 18 oz. A short wool blouse for winter dress wear. (2770)

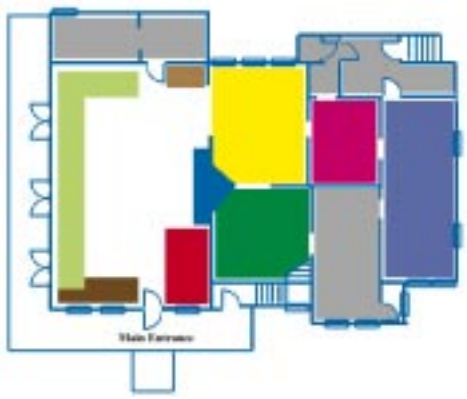
M1917 helmet, steel, trench. Introduced for trench warfare of World War I and replaced in 1942 by the M1 steel helmet with plastic liner. (2811)

Field Manual, Equipment, Clothing, and Tent Pitching, 1940 edition. (7055)

M1938 canvas leggings, dismounted. (Courtesy Ila Healy) (0137)

Web belt, with brass buckle. (0615)

M1942 officer's service uniform. This uniform belonged to Maj. Gen. Raymond W. Bliss, Surgeon General of the Army from 1947-51. He was born in Chelsea, Massachusetts on 17 May 1888. Tufts College awarded him the degree of Doctor of Medicine in 1910. His active military service started in September 1912 as a student first lieutenant at the Army Medical School, Washington, D. C., and ended as major general of the United States Army in June 1951. He initially saw medical duty in Arizona at Fort Huachuca, Nogales, and as Post Surgeon at Fort Apache during the period June 1913 to April 1915. As a major he commanded General Hospital No. 20, Whipple Barracks, Arizona, during May to December 1919. He returned to the state once more as Camp Surgeon, Camp Stephen D. Little, Nogales, from November 1924 to March 1929. The hospital at Fort Huachuca was named in his memory in July 1967. (0738)



Tie, khaki. (1015)

Summer service uniform, cotton, khaki shirt and trousers. This first sergeant wears brown on khaki chevrons for the summer uniform. On the winter uniform, green on black chevrons were worn. (Courtesy C. Bruck) (1025) (1026)

Liner, M1 helmet. (Courtesy F. Little) (1037)
Nameplate, desk. (Courtesy F. Little) (1042)
Shirt, khaki. (Courtesy Lt. Col. J. Daniel) (1156)

Desk, oak, and **chair**, World War II models. (1362)
Service shoes, Type II. (1380)
M1936 pistol belt, with **M1923 magazine pockets**, double web, enlisted. (1381)
Circa 1942 officer's brown leather shoes. (1391)
Holster, for .45 automatic pistol. (1397)

Guidon, 597th Artillery, A Battery, a unit of the 92d Infantry Division. (Courtesy Dr. G. Proctor) (1435)
M209 code converter. Called the "most ingenious mechanical creation in all cryptography," the Army's M209 code converter was purchased from Swedish inventor Boris Hagelin in 1940. It served as the standard cryptographic system from division to battalion level. Rugged and compact, it enabled the operator to easily change keys and to encipher at 15 to 30 words a minute. (1437)

M1912 service coat, officer, with **1918 War Service chevrons** on the left cuff. (Courtesy W. J. Markel)

Lew Davis—Huachuca's Soldier Artist. Called the "Dean of Arizona Artists," Lew E. Davis (1910-1979) was just establishing a reputation when he was contacted in 1942 by Fort Huachuca's commander, Col. Edwin N. Hardy, to do a mural for the white officers' club. While working on "The Founding of Fort Huachuca" in 1943, Davis looked for ways to improve the morale of the black soldiers training at the post. He proposed to Colonel Hardy that a mural be made depicting "The Negro in America's Wars," and that a silkscreening workshop be set up to train soldier artists and produce posters featuring black soldiers. Davis said, "I saw [a social problem] that got me involved much deeper. …One of the things I proposed because the propaganda posters that came out of Washington and were sent to all installations all had smiling blond blue-eyed guys on them, you know, waving a war bond or something; and I could see in every barracks that I visited that they were torn away." The posters that Davis designed, some reproduced in this room, were distributed to the 62 Army posts where African-Americans were stationed. Davis was drafted and assigned on special duty to Fort Huachuca in January 1944 to continue his art workshop and edit the post newspaper. For his singular contribution to the morale and cultural awareness of Huachuca's black soldiers, Davis was awarded the Legion of Merit, a citation usually reserved for officers.

Fort Huachuca: Home of the Buffalo Soldier

Fort Huachuca, more than any other installation in the U.S. military establishment, was at the heart of half a century of black military history. It was here that black soldiers came to reflect upon their worth, to remember the part they had played in taming Comanche, Kiowa, Apache, and Sioux; in punching a hole through Spanish lines on a Cuban hilltop so Teddy Roosevelt and his Rough Riders could dash through it; and in winning the day against Mexican forces at Agua Caliente in 1916. If their white fellow Americans did not show them the respect they deserved, their foes in battle did. The Indians called them "Buffalo Soldiers." The Germans in World War I referred to them as "Hell Fighters."

It was on Huachuca's parade field that they felt the stirrings of pride that only the soldier knows, and they marched with a growing sense of equality that their brother civilians would not be allowed to feel until decades later. Problems of discrimination were as widespread in the Army as they were in other parts of American society, but minority barriers fell faster in the Army where the most

important measure of a man is his dependability in a fight.

Although the 9th Cavalry and the 24th and 25th Infantry regiments had all served briefly at Fort Huachuca during the 1890s, it wasn't until the 10th Cavalry, or the "Buffalo Solders," arrived here in December 1913 that the era of black soldiers began at Huachuca. This proud cavalry unit had served in Arizona before, in the last century rotating from one post to another in Arizona, New Mexico, or Texas, wherever they were needed to track down Apache renegades. So the startling vistas were not new to many of the veterans. Nor was the relentless desert sun a stranger to these horsemen who doggedly followed the trail of Pancho Villa in Mexico in 1916. In Huachuca Canyon they found a home for the next 14 years, the longest this mobile unit would stay at any one place since its formation in 1866.

They were relieved in 1931 by the 25th Infantry Regiment. First arriving at the post in 1928, the 25th continued the tradition of black soldiering here. Like the 10th Cavalry, they had seen hard combat in both the Indian Wars and in Cuba. Also like the Tenth, they were to serve here for 14 years until 1942 when they were incorporated as cadre into the newly formed 93d Infantry Division.

The 93d and 92d Divisions trained one after the other at Fort Huachuca during World War II. The 93d, which would be the first black division to see action in the war, arrived in Arizona in 1942 and shipped out to the Pacific in 1944. Because its regiments, the 368th and 369th, were assigned to the French Army in World War I, the light blue French helmet became the division's shoulder patch.

The 92d too had regiments (365th, 370th and 371st) that could trace their lineage to some heroic fighting in France in 1918, but the division chose to reach back to the Indian Wars of the 1870s and 80s for their symbol. They chose for their shoulder patch the buffalo, recalling the "Buffalo Soldiers," as the black troops were respectfully called by the Indians of the Western plains.

To some blacks Huachuca was a mountain refuge far away from the immense struggle that was taking place in America's city streets and country lanes, a fight for equality. But for others it was a way to participate in the struggle, to take up a profession that offered dignity, service to country, and maybe a warriors death. For whatever reason they joined the Army (the Marines did not admit blacks; the Navy had only a few openings for the menial job of messboy), Fort Huachuca would be an almost inevitable stop along their way. Some found it to be "a very fine place to serve." To others it was "an infamous place." For all it was, for a time, home. Black infantrymen and cavalrymen carved out a place in history here. If the sobriquet "Buffalo Soldier"

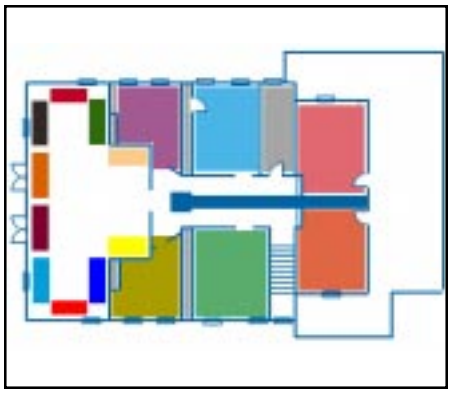
has come to stand collectively for the black men who served in the four regular army regiments from 1866 to World War II, then Fort Huachuca has earned the distinction of being "Home of the Buffalo Soldier."

Bust of Buffalo Soldier, plaster, sculpted by Kenneth W. Eckles. (2932)
Circa 1880 white dress gloves. (0985)
M1885 dress uniform for first sergeant of Infantry. (1072)
M1881 dress helmet, with eagle plate for 24th Infantry. (1073)
M1885 NCO uniform. (1070)
M1895 forage cap, with insignia for "A" Company, 25th Infantry. (1071)
10th Cavalry orders book, kept by Captain Nolan from September 1879 to November 1880 at Fort Sill, Oklahoma, and Fort Concho, Texas. (0999)
Guidon, 10th Cavalry, F Troop. (Repro) (Courtesy B. Tuttle)
Cavalry spurs marked "10th Cav" "RIA1903". (2197)
Guidon, 9th Cavalry, H Troop. (Repro) (Courtesy B. Tuttle)
Bust of 10th Cavalry trooper, by Shebl. (2286)

Army Wagons in the Southwest

Circa 1886 light army buckboard. (Model) (1318)
Circa 1880 two-mule ambulance wagon. (Model) (1315)
Circa 1880 four-mule Army escort wagon. (Model) (1311)
Circa 1880 Medical Corps ambulance. (Model) (1314)
Circa 1880 heavy freight wagon, civilian. (Model) (1313)
Circa 1885 water tank wagon. (Model) (1319)
Circa 1885 sutler's van. (Model) (1317)
Circa 1878 Dougherty spring wagon. (Model) (1316)
Circa 1877 six-mule Army wagon. (Model) (1310)
Circa 1880 mountain wagon, California rack-bed design. (Model) (1312)

Conquistadores: The Children of the Sun



Continuous war in 16th century Spain produced a new class—the conquerors. For seven centuries the way to lands and distinction had been to go out and conquer them from the Moors. With the Moors defeated, there was the New World with its gold. In 1536 Cabeza de Vaca, leading an expedition which had been shipwrecked on the coast of Texas eight years before, miraculously arrived in Sinaloa, Mexico. He told stories of great riches in the cities to the north in present-day Arizona and reenkindled the feverish quest for the fabled Seven Cities of gold or Cibola. So now the Conquistadores would push the frontier of the Spanish Empire out of Mexico and into today's United States, marching in suffocating medieval armor toward a dream.

Appointed in 1539 to lead the expedition into Arizona in search of Cibola was Francisco Vasquez de Coronado (1510-1554). He had come to the new world with Viceroy Antonio de Mendoza and was serving as governor of Nueva Galicia, New Spain's northernmost province. Following Fray Marcos de Niza's preliminary 1539 exploration and glowing reports of untold wealth in the Seven Cities, Coronado set out with 336 Spanish cavalry, 1,000 Indian allies and 1,500 horses, mules, and uncounted cattle and sheep. In the Spring he and his advance guard crossed into what is today Arizona at a point visible from the Huachuca Mountains. On July 7, 1540, his army reached its goal, the Zuni Indian pueblo of Hawikuh. He found no riches, only Indians willing to fight for their meager food supply. After continuing as far east as Wichita, Kansas, he returned to Mexico City in the spring of 1542 to face charges for his failure. He was absolved six years later. The Coronado National Monument in the southern Huachucas commemorates this conquistador.

Though he failed to find any golden cities, or for that matter even any territory worth colonizing, Coronado did hear from an Indian whom they called "Turk" that there was a rich land farther to the east called Quivara. This was enough to fire the imaginations of those still interested in the mineral wealth of the far-reaching northern outposts of New Spain. They marched into Arizona and New Mexico, across deserts and over mountain ranges, picking their way through the bizarre flora and fauna that would now bear Spanish designations, names like mesquite, desert mariposa, ocotillo, cholla, paloverde, saguaro, jojoba, yucca, agave and manzanita. In the course of their wide-ranging explorations, they would meet, convert, and subjugate the land's Indians. These natives had not always been at peace with one another, but they were united now with one thought—to resist to the death the Spanish invaders of their homelands. They unlimbered their bows and picked up rocks to hurl at the armored Iberians. It would be a battle of the Stone Age against the Iron Age and, after much bloodshed, the advanced European armies would prevail.

Other early forays into what is now New Mexico were launched to convert Pueblo Indians, to rescue the convertors, or to search for booty. They were led respectively by Friar Augustin Rodriguez in 1581, Antonio de Espejo in 1582, and Castana de Sosa in 1590.
In the same year another group, led by Francisco Leyva de Bonilla and Antonio Gutierrez de Humana, was slaughtered somewhere on the plains of Kansas.

It was not until 1598 that Juan Onate with 400 followers crossed the Rio Grande at El Paso and proceeded north to permanently settle New Mexico. Onate sallied forth from his headquarters in New Mexico on expeditions to find Quivara. One of these took him into Arizona along the Colorado River. A capital was established at Santa Fe in 1610 and it was from here that the Spanish rushed north intent on trading on New Mexico. Throughout the latter part of the 17th century they were preoccupied with stamping out revolts by the Pueblo Indians.

The adventures of the Spanish soldier on a frontier they called "el fin del mundo," or the end of the world, are tales of hardship, of heroism, of success and failure, and too often are tragedies arising out of the clash of cultures. The Spanish were operating in the borderlands of New Spain for three centuries before the United States conquered this region. The story of their struggles and triumphs are prologue to the U.S. Army's operations in the indomitable and sanguinary American Southwest.

Helmet, Conquistador. (Repro) (2301)
Breastplate, Conquistador. (Repro) (2302)
Sword, Conquistador. (Repro) 2303)
Cannon, bronze. (Model) Similar to those used by the Spanish in the New World. (2398)
Sword, Spanish, circa 1800. (2084)
Catholic communion-wafer press. (2037) After the Spanish conquistadors came the soldiers of Jesus, and foremost among them was Eusebio Francisco Kino (1644-1711) who entered southern Arizona in 1691 to found the mission of San Cayetano de Tumacacori. Gradually he worked as far north as the Gila River, mapping, exploring, preaching and giving agricultural instruction. By the time of his death, the scholarly Jesuit had added a new region to the Spanish domain. San Xavier del Bac is one of his better known missions. A fellow traveler described him as a man of courage and frugality: "He never had any other bed than the sweat blankets of his horse for a mattress and two Indian blankets. He never had more than two coarse shirts, because he gave everything as alms to the Indians."

In 1696 Kino introduced cattle and horses into the San Pedro Valley at Quiburi, a Sobaipuri Indian village located between present-day Fort Huachuca and Tombstone. Kino enlisted the Sobaipuris as allies of the Spanish against the Apaches and they proved to be effective warriors, routing a combined party of Jocome, Mansos, and Apache raiders in the battle of Santa Cruz in 1698. The Apaches returned for revenge later that same year and eventually drove the Sobaipuri out of the San Pedro Valley.

The Spanish intensified their efforts to fortify their northernmost colonies after a 1751 uprising by the Pima Indians. They built a presidio at Tubac in 1752 to protect their settlers while the Jesuits maintained a mission just three miles away at Tumacacori. From Tubac in 1774 was launched the expedition of Juan Bautista de Anza to open an overland route to California. The presidio at Tubac was replaced by a new fort in Tucson in 1776 to meet the increasing Apache threat in the north.

The San Pedro Valley was a strategic key to the Spanish defense of their colonies and they built a fortress, the presidio of Santa Cruz de Terrenate, at Quiburi in 1772, ten years after their allies, the Sobaipuri, had abandoned it. But even this fortified position could not withstand the onslaught of the Apache and it was vacated and transferred to Sonora in 1789, leaving the entire valley and the Huachuca Mountains under sway of the Apaches. These fierce warriors would dominate the area for the next seventy years until the arrival of the U.S. Army and the ensuing Apache Campaigns.

Territorials: The Anglo Settlers

The 1848 Treaty of Guadalupe Hidalgo, ending the Mexican War, and the Gadsden Purchase of 1853 added the present state of Arizona to the American frontier. Part of the Territory of New Mexico, Arizona quickly acquired a pioneer character of its own. First came the U.S. Army surveyors charting the vast deserts and the '49ers hurrying down the Gila Trail to the California gold fields. Then came the permanent settlers, braving Indians and lawlessness in search of promising minerals, farms, grazing lands, and shops. Their growing presence necessitated a form of protection and government responsibilities that were assigned to the U.S. Army. The soldiers arrived to garrison this turbulent frontier and to open one of the most colorful chapters in American history.

The Rancher

Most early Arizonans could be made to endure danger and deprivation only by the promise of instant wealth from a silver strike. Others, like Pete Kitchen, saw a more lasting enterprise in southern Arizona's

rich grazing lands. Proprietor of thousands of acres of ranch land north of Nogales, Kitchen and his Arizona cowboys fought daily with Apaches and bandits to gain prominence and wealth from the cattle and farming business.

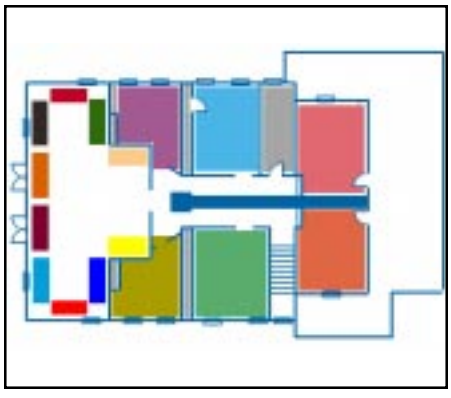
The Miner

An Army major commanding Fort Yuma, Samuel P. Heintzelman, combined with Charles Debrille Poston in 1854 to form the Sonora Exploring and Mining Company. The firm developed several silver mines in the area of Tubac, the richest being named the Heintzelman. It was this early exploration that gave the first hint of Arizona's potential for rich mineral deposits. Many prospectors followed. Some—Lieutenant Sylvester Mowry, Jacob Snively, and Ed Schiefflin—found the wealth that the Spanish had searched vainly for above the ground. Others, like the Conquistadores, found only disappointment and death.

M1874 Remington Rolling Block Carbine. It is a breechloading, double-action, single shot. In its day it was the most widely used rifle lock design in the world. (2030)

Woodcarvings of settlers made by Chief White Eagle, a Cheyenne Indian, of Tombstone, Arizona. They were made in 1971 and depict characters from the heyday of the area, the 1880s. (0382-0386)

M1873 "Peacemaker" Colt. This is a .22 caliber commemorative model of the .45 and is one of only 500 made to mark Arizona's 100th birthday as a territory. (2326)



Smith: Frontier Trooper

Born in Tucson in 1869, Cornelius Cole Smith was to add luster to a distinguished military family. His father, an officer in the Union Army's California Column, served after the war as the Quartermaster at Fort Lowell in Tucson. The younger Smith enlisted in 1890 and a year later won our nation's highest award for gallantry against the Sioux at White River, South Dakota. Commissioned in 1892, the Medal of Honor winner went on to serve in Cuba during the Spanish-American War, in the Philippines under Generals Leonard Wood and John J. Pershing, and in South America as an attache. His global career ended at Fort Huachuca where, as a colonel, he commanded the 10th Cavalry and the post from 1918-19.

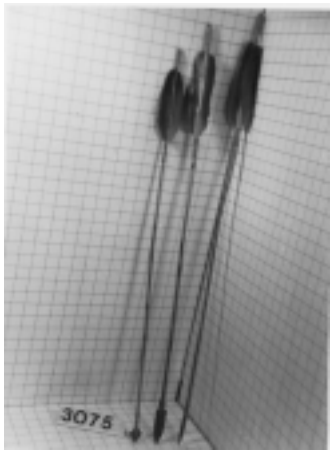
M1885 canteen, with 10th Cavalry markings. (2243)
Medal of Honor is our nation's highest award for valor. The Army version of a medal of honor for enlisted men who "shall most distinguish themselves by their gallantry in action, and other soldier-like qualities" was approved by President Lincoln on 12 July 1862. The first medal was awarded on 25 March 1863 "in the name of the Congress of the United States" and hence is sometimes known as the Congressional Medal of Honor. This medal is the design of 1904. The original 1862 design was changed in 1896, 1904 and 1944. (Repro)
M1904 shoulder bars, captain of Cavalry, worn by Cornelius C. Smith, 1891 Medal of Honor winner and Fort Huachuca Post Commander, 1918-19. (Courtesy C. C. Smith, Jr.) (0230)

M1890 officer's dress saber and scabbard, belonging to Cornelius C. Smith. (Courtesy C. C. Smith, Jr.) (0912)
M1881 dress helmet, Cavalry. (Repro) (Courtesy C. C. Smith, Jr.)
M1885 officer's dress cape. For wear by officers when not on duty with troops under arms, these capes were lined with the distinguishing color of the wearer's branch of service. This yellow-line cape belonged to Cornelius C. Smith, who commanded the 10th Cavalry at Fort Huachuca. (Courtesy C. C. Smith, Jr.) (0913)
M1884 Springfield rifle, single-shot, breechloader. (2275)

Geronimo

"I was living peacefully with my family, having plenty to eat, sleeping well, taking care of my people, and perfectly contented. …I was behaving well. I hadn't killed a horse or man, American or Indian. I don't know what was the matter with the people in charge of us. They knew this to be so, and yet they said I was a bad man and the worst man there; but what had I done? I was living peacefully there with my family under the shade of the trees, doing just what General Crook had told me I must do and trying to follow his advice. …I was praying to the light and to the darkness, to God and to the sun, to let me live quietly there with my family. I don't know what the reason was that people should speak badly of me. …There are very few men left now. They have done some bad things but I want them all rubbed out now and let us never speak of them again. There are very few of us left." —Geronimo

M1873 Winchester carbine, .44 caliber. The most popular carbine in the west. (2174)
Apache arrows. (3075)



Ceremonial Indian pipe, with tomahawk-shaped bowl. It was donated in 1972 by Mrs. Edwin C. Witwer, a descendant of Capt. Henry Lawton, 1885 post commander at Fort Huachuca. Captain Lawton's pursuit contributed in large part to Geronimo's surrender in 1886. This pipe was allegedly given to Captain Lawton by Geronimo. It should be noted that Apaches did not use peace pipes or tomahawks. These were the type of items they accumulated while in captivity at Fort Sill, Oklahoma, to impress the press and tourists. (3101)

Gatewood: Big Nose Captain

So called by the Apaches, Lieutenant Charles B. Gatewood was commissioned a Second Lieutenant in the 6th Cavalry in 1877 and served for 10 years in Arizona and New Mexico. In command of Indian Scouts and for some years the acting Indian Agent at Fort Apache, Gatewood enjoyed the respect of the Apaches and was the clear choice to negotiate Geronimo's surrender in 1886. War Department Orders cited him for bravery in boldly and alone riding into Geronimo's camp of hostile Apache Indians and demanding their surrender. His singular achievement in the Geronimo episode went largely unnoticed in the clamor for recognition which followed among other participants in the campaign.

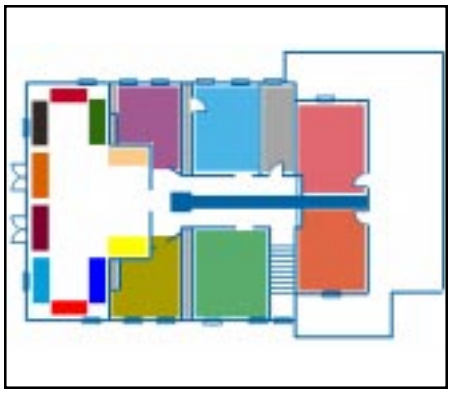
Grey Wolf

The Army campaigned against Cochise through the 1870's and 1880's when Victorio and Geronimo came to the fore. Leading these efforts was Department of Arizona Commander Brevet Major General George Crook, known to the Apaches as "Grey Wolf." He was an able administrator as well as an outstanding soldier, and proved to be a relentless opponent of the Indian on the battlefield and a steadfast friend off it. Crook met with Geronimo in the Sierra Madre Mountains in March of 1886 and negotiated a surrender that brought in all but Geronimo and a few followers who backed out at the last moment. When Washington failed to back the field commander in the conditions on which he had negotiated the surrender, Crook asked to be relieved.

General Miles

Nelson A. Miles began his military career during the Civil War, becoming a Colonel at the age of 23 and winning the Medal of Honor at Chancellorsville. As a Brigadier General, he replaced General Crook as Department of Arizona Commander in 1886 and became a hero to Arizonans after Geronimo's final surrender and deportation to Florida in that same year. General Miles is also credited with introducing the heliograph into Arizona.

M1885 Infantry haversack,
M1873 Army Colt, single action revolver. (Repro)
Cavalry bugle, brass, Indian Wars period. (0226)



M1885 canteen. (0227)

M1861 Springfield percussion rifle. This is the shorter 33" barrel made for artillery use. The Infantry model had a 40" barrel. This model was the ultimate development of the muzzle-loader. (2186)
M1885 saddlebags, used by the Cavalry through the Indian Wars. (2391)

Wood: Surgeon Soldier

Dissatisfied with the tranquility of his small medical practice in the east, Dr. Leonard Wood entered the Army as a contract surgeon and arrived at Fort Huachuca in 1885. Finding the rugged Apache Indian campaigns more to his liking, he joined Captain Henry Lawton and the 4th Cavalry in the final pursuit of the renegade Geronimo. In the 4-month campaign, his endurance and sustained courage earned for him the Medal of Honor. He is remarkable for his rise as a professional soldier as well as a medical doctor. Commanding the Rough Riders in Cuba and serving in the Philippines, this combat officer became Army Chief of Staff in 1910.

Medical chest, used since the Civil War. It was outfitted with necessary medical supplies and surgical implements needed in the field of operations. (Courtesy Mrs. E. Strong) (0236)

1871 War Department Medical Report of Surgical Cases, detailing injuries, treatments, and procedures. (0566)
Large pocket surgical kit, carried by doctors during the Indian Wars. It contains 24-four pieces, including sterile catgut, for emergency surgical procedures in the field. (1065)
Small 10-piece pocket surgical kit of the Indian Wars period used for emergency procedures until the wounded could be evacuated for further treatment. (1066)
Microscope, used during the 1880s for pathological research. (1067)
Medicine bag. (1068)

Barnes: Signalman

The Signal Corps played an important role in Arizona's development, operating thousands of miles of telegraph lines, providing a national weather service, and, in 1886, establishing an unique heliograph network. Notable among these signalmen was Sgt. Will C. Barnes. Later a prominent Arizonan, cattleman, and author, he first came to Fort Apache in 1879 as a private. During the Indian uprisings in 1881, he risked his life to climb an outlying mesa and signal the undermanned fort of the return of the main body. Time and again he alone ventured into enemy-infested areas to repair cut telegraph lines and carry dispatches. For his conspicuous gallantry, he was awarded the Medal of Honor.

Binoculars, of the type used at Fort Huachuca in conjunction with the heliograph. (0239)
M1885 dress helmet. The orange plume and cord indicate it was

worn by a Signal Corps enlisted man. (2208)

Heliograph signalling device. Invented by the British, the heliograph was used with success in India, Afghanistan, and South Africa. The mirror device flashes the sun's rays using a modified Morse code. The U.S. Army, believing they might be effective in the cloudless southwest, began testing the instrument in 1877. General Miles established an extensive heliograph network during the 1886 Geronimo campaign. The Apaches, who were familiar with the use of signalling mirrors, felt threatened by the 27-seven heliograph stations stretching across southern Arizona and New Mexico and, to escape observation by the operators, fled into Mexico. (Courtesy R. D. Smith) (2577)

Semaphore flags, used by the Signal Corps for transmitting messages under line of sight conditions. (Courtesy MSgt. W. C. Hatfield) (2579)

Pershing: Black Jack

General of the Armies John J. Pershing began his service as a Second Lieutenant of Cavalry, serving in the Southwest and taking part in campaigns against hostile Apaches. In 1895 he joined the 10th Cavalry and his strong belief in the worth and the rights of the black soldier earned him the nickname "Black Jack." After several years of action in Cuba and the Philippines, he returned to the Mexican border where he led the force that pursued Pancho Villa into Mexico. Named by President Wilson to command the American Expeditionary Force, his leadership during World War I won a lifetime appointment as General of the Armies of the United States. Retiring as Army Chief of Staff, Pershing paid a last visit to Fort Huachuca in 1924.

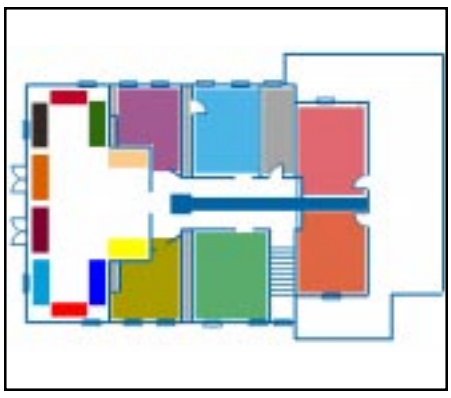
Punitive Expedition

On March 16, 1916, a punitive force under Brigadier General John J. Pershing crossed the Mexican border in pursuit of Pancho Villa who had raided and burned the border town of Columbus, New Mexico. Pershing's long pursuit helped to break Villa's power and caused his band to disperse and go into hiding.

World War I

The mission of Fort Huachuca during World War I was border duty. The threat from German and Mexican saboteurs and subversives appeared to be a genuine danger. A German-instigated clash between American and Mexican troops in the border town of Nogales in 1918 resulted in the death of a U.S. soldier.

M1903 Springfield rifle. This was the answer to the problem, made clear during the Spanish-American War, of delivering a high rate of sustained fire. The U.S. government paid the German Mauser patent owners $200,000 for the use of the bolt action mechanism. (2233)
Personal flag of John J. Pershing, General of the Armies. Although General Pershing was never stationed at Fort Huachuca, he was fond of the post and visited it many times during his active service and during his retirement, while wintering in Tucson. (Courtesy Capt. J. S. Peters) (2845)
World War I steel helmet. (Courtesy C. Walp) (2846)
Final Report of Gen. John J. Pershing, published by the Government Printing Office in 1920. (Courtesy J. T. Begg) (3332)



The Apache Scout

The employment of Indians to guide and augment Regular Army units was a widespread practice during the Indian Wars, but a unique application was made in Arizona Territory by Brig. Gen. George Crook. Heretofore, Indians of one tribe were used to track and fight Indians of another, usually their traditional enemies. But Crook enlisted Apaches to fight Apaches, explaining, "nothing makes these 'bucks' feel so good as the idea of their being a part of our soldiers, and nothing will demoralize the hostiles so much as to know their own people are fighting in the opposite ranks."

That they did what was expected of them can be seen in the statistics of the 1872-3 Tonto Basin campaign in which scouts accounted for 272 of the total 283 hostiles killed and captured 213.

Apache Scout companies were made up of 25 Indians with a white officer in command, and often direction was given by a civilian chief of scouts. Crook treated them with respect and saw to it that they were paid on time.

So effective did they become in tracking Apache renegades that they were indispensable in all Arizona, New Mexico, and Mexico operations conducted after 1882. This fact rankled Lt. Gen. Philip Sheridan and other military officials who distrusted the Indians' loyalty and put their faith only in regular troops. But their contributions to bring about the surrender of renegades in the 1883 Sierra Madre campaign and again in locating Geronimo's camp in 1886 are apparent.

Crook emphasized their worth in his official report: "I cannot too strongly assert that there has never been any success in operations against these Indians, unless Indian Scouts were used. These Chiricahua scouts . . . were of more value in hunting down and compelling the surrender of the renegades than all other troops

. . . combined. The use of Indian scouts was dictated by the soundest of military policy."

After Geronimo's surrender there was less of a need for Indian scouts and by 1916 only 39 remained in service. In 1922 the scouts were moved to Fort Huachuca which would become their permanent home until the remaining few retired in 1947. At Huachuca they patrolled the boundaries of the military reservation and took part in ceremonial functions, stirring memories of a proud past.

Apache Sergeant Sinew Riley, in his retirement speech, spoke for all the Indian Scouts:

> "We were recruited from the warriors of many famous nations. We are the last of the Army's Indian Scouts. In a few years we shall have gone to join our comrades . . . beyond the sunset, for our need here is no more. There we shall always remain very proud of our Indian people and of the United States Army, for we were truly the first Americans and you in the Army are now our warriors."

Guidon, Indian Scouts. This is a reproduction of the type carried by the Indian Scouts at Fort Huachuca. It was presented to the museum by Edgar Perry, a White Mountain Apache, on the 1974 dedication of Riley Barracks (named for a sergeant of the Indian Scouts). (Repro)

Hat insignia, Indian Scout. The "USS" stands for United States Scout. (Courtesy E. Perry) (0190)

Wood carving, artist unknown, depicting the Indian Scout. (2135)
M1911 service hat, bearing Indian Scout insignia. (3032)

The Blue Helmets: The 93d Infantry Division

The first black, division-size unit to see combat action in World War II was the 93d Infantry Division. Trained at Fort Huachuca,

the soldiers, who wore a blue French helmet patch, went ashore at Bougainville in 1944 during the fighting for the Solomons. The unit then began an island-hopping tour of the Pacific ending in the Philippines. The unique blue helmet patch symbolized the valiant service of the 93d's regiments in France during World War I. In 1972 the flags of the inactive Division were returned to the custody of Fort Huachuca, the official home station of the 93d Infantry Division.

M1917 Enfield rifle. It was a World War I weapon and saw limited service in World War II. It was designed by the British Army and adopted by them in 1913. The U.S. manufactured huge quantities of this weapon for the British from 1914 to 1917. It is a breech-loading repeating rifle, clip-fed, smokeless powder cartridge, jacketed bullet, bolt action, manufactured by Remington, Remington-Eddystone, and Winchester Companies. (2029)

M1 Rifle, .30 caliber, semi-automatic. It was universally known as the "Garand" after its designer, John C. Garand, chief civilian engineer at Springfield Armory. It was gas-operated, weighed about 9 1/2 pounds and was fed by an eight-round clip. Its semi-automatic feature meant that a soldier could repeatedly (twice as fast as the M1903 Springfield) fire eight aimed shots by squeezing the trigger for each shot. Before becoming standard in 1936, the M1 was the subject of grueling tests by the infantry, cavalry, and the Marines. The Garand was best among the semi-automatics. (Interestingly, the old M1903 Springfield proved better in accuracy, ruggedness and dependability, but could not compete with the firepower of the semi-automatic.) The M1 could fire 20 rounds per minute at an effective range of 500 yards. Production was made difficult by the fact that the M1 had 70 separate parts to be machined but the final result gave the American World War II soldier a decided advantage over his enemy as no other major power had a good semi-automatic rifle. This is a rare first model. (0086)

M1 Carbine, .30 caliber. One of the most popular weapons of World War II, it was known as the "Baby Garand." Like the rifle, it was gas-operated and semi-automatic but it weighed less than 6 pounds and was about 3 feet long. It was fed by a 15-cartridge magazine and had an effective range of 300 yards, four times the range of the .45 caliber pistol which it replaced. The M1 carbine was essentially a defensive weapon for service troops should they find themselves under attack. In early 1944 the carbine could be set for full automatic as well as semi-automatic. It was called the M2 carbine. Some M1's were modified for selective automatic fire. (1813)

Flags and guidons of the 93d Infantry Division, with battle streamers earned by that unit during World War II. (2406-2409, 2583, 2584) The first black, division-size unit to see combat action in World War II was the 93d Infantry Division. Trained at Fort Huachuca, the soldiers, who wore a blue French helmet patch, went ashore at Bougainville in 1944 during the fighting for the Solomons. The unit then began an

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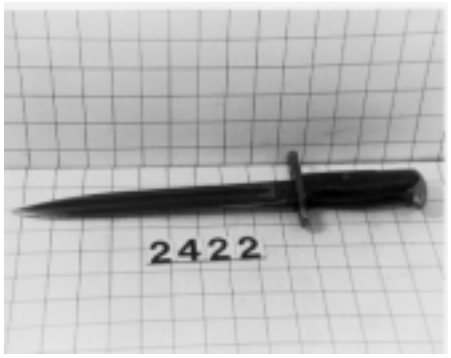
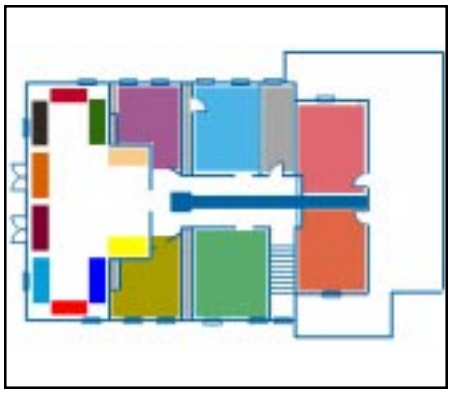
World War II service cap, enlisted. (Courtesy O. A. Cochran)
Bayonet. (2422)



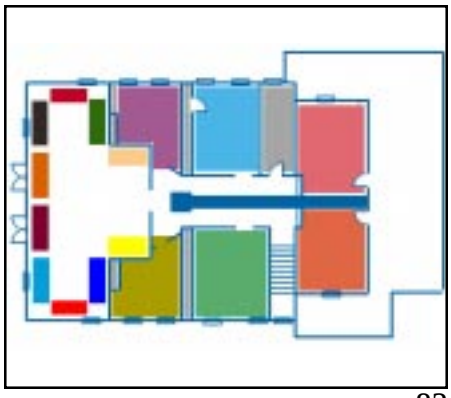
M1944 wool field jacket, known as the "Ike jacket," was introduced in the European Theater of Operations and worn for dress as well as in combat. (2734)



Patch: A Fort Huachuca Family

Many renowned military families have called Fort Huachuca home. One of these was that of Lt. A. M. Patch who was Quartermaster of the post and the 4th Cavalry from 1885-89. Leaving the Army because of an injury, Lieutenant Patch remained on the fort as manager of the Post Trader's Store. His two sons, both born at Fort Huachuca, rose to General ranks. Maj. Gen. Joseph Dorst Patch, born in 1885, commanded the 80th Division during World War II. Lt. Gen. Alexander M. Patch, Jr., born in 1889, was commander of U.S. Forces at Guadacanal and Commanding General of the 7th Army in Europe.

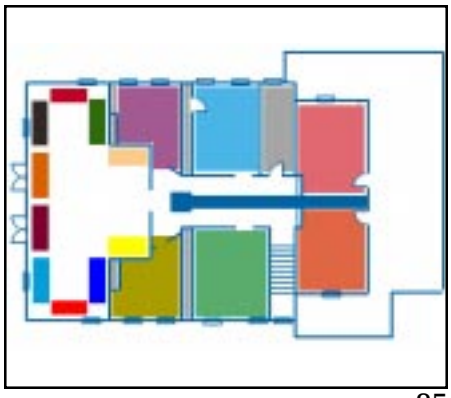
Dress saber, U.S. Military Academy, worn by Cadet Alexander M. Patch, Jr. (Class of 1913). (Courtesy of Julia Patch Weston, granddaughter of Lt. Gen. A. M. Patch, Jr.) (0202)
Trousers, olive drab, wool, 1944. (Courtesy J. P. Weston) (0208)



Field Jacket, olive drab, wool, 1944. Called the "Ike jacket," it was worn in the European Theater of Operations by Lt. Gen. Alexander M. Patch, Jr., who was born at Ft. Huachuca in 1889. (Courtesy J. P. Weston) (0209) His ribbons are:
Top row: Distinguished Service Medal (Navy); Distinguished Service Medal (Army), with two stars.
Second row: Bronze Star Medal; Presidential Unit Citation (Navy),

with bronze star; Legion of Honor (France); Croix de Guerre (France).
Third row: Abdon Galderon Star (Ecuador); Mexican Border Service Medal; Asiatic-Pacific Campaign Medal, with star; European-African-Middle Eastern Campaign Medal, with four stars.
Fourth row: Mexican Service Medal; Victory Medal, World War I, with five stars; Army of Occupation of Germany Medal, 1918-23; American Defense Service Medal.
Beaded riding crop, carried by Lt. Gen. A. M. Patch, Jr. (Courtesy J. P. Weston) (0210)

Letter from Lieutenant Patch, announcing the birth of a daughter at Fort Huachuca in October 1888. The baby died 6 months later and is buried in the post cemetery. (0401)
Miscellaneous American and foreign decorations received by Lt. Gen. A. M. Patch, Jr. (Courtesy J. P. Weston) (0406-0417)
Diploma from U.S. Army Military Academy, West Point, awarded to Alexander M. Patch, Jr. in 1913. (Courtesy J. P. Weston) (0421)
Diploma from U.S. Military Academy, West Point, awarded to Alexander M. Patch in 1877. (Courtesy J. P. Weston) (0443)
Personnel flag of Lt. Gen. Alexander M. Patch, Jr., used during WWII. (Courtesy Julia Patch Weston) (0444)
M1 helmet liner, worn by officers behind the lines. (0455)
M1893 cadet dress helmet, U.S. Military Academy. (Courtesy Col. F. T. Arnold) (2468)



WEAPONS: The U.S. Army's Small Arms

From the "Brown Bess" flintlock musket used in the Revolutionary War to the M-16 adopted in 1963 for use in Vietnam, the evolution of American small arms has reflected the critical importance of technology in war. Rifled barrels began replacing smooth-

bore muskets in 1803. Percussion caps replaced the spark of the flintlock in the model of 1841. Revolvers replaced single-shot pistols with the M1846 Colt. Mini balls with paper cartridges were succeeded by metallic cartridges by 1869, and in the same year muzzle-loaders were completely eliminated in favor of breach-loaders. Repeating rifles like the M1863 Spencer would make the single-shot obsolete. The invention of smokeless powder in 1885 allowed infantry to engage at 500 yards. Magazine-fed weapons like the M1898 "Krag Jorgensen" solved the problem of carrying and loading loose cartridges. Semi-automatic, gas operated rifles like the M1936 M1 Garand supplanted the clip-fed M1903 Springfield which required the trigger to be squeezed for each of the eight rounds in the clip. Each new model took advantage of technology to improve accuracy, effective range, loading time, and the rate of fire, and each changed the face of warfare.

M1819 Springfield flintlock musket. It was the standard Infantry arm for 25 years, from 1775 until 1842, until the adoption of the percussion system. It is the kind used in both the Revolutionary War and the War of 1812. It is a muzzle-loading, flint-lock ignition, black powder, round lead ball projectile, smooth-bore. (2035)

M14 Automatic Rifle. This weapon was the result of a need to develop a weapon to fire the 7.62mm cartridge, the common cartridge decided upon by the North Atlantic Treaty Organization in 1953. After a series of trials involving other British and American combat rifles, the M14 emerged the winner and was officially adopted by the U.S. Army in 1957, replacing the M1. It owes some of its design features to its sturdy forerunner, the M1, but takes a 20-round magazine rather that the old 8-round magazine of the M1. It is also capable of firing in both the semi-automatic and fully automatic mode, a first if one excludes the heavier M1918 Browning Automatic Rifle (BAR). The M14 can fire 750 rpm at a muzzle velocity of 2800 feet per second. Fitted with a telescopic sight, it was used as a sniper rifle in the Vietnam War. (2184)

M1807 Harper's Ferry flintlock pistol. This is the type of weapon used in the American Revolution and in the War of 1812. It was copied from British and French designs. It is muzzle-loading, flint-lock ignition, black powder, round lead ball projectile, smooth-bore. (2121)

M1863 Springfield rifle, Type 2. Some 255,000 of this model

were produced at the Springfield Army in 1864 and 1865. It was the last U.S. muzzle-loading Infantry shoulder arm. It was used by both sides in the Civil War. It was a muzzle-loading, percussion cap ignition, black powder, conical lead bullet, rifled bore. (2122)

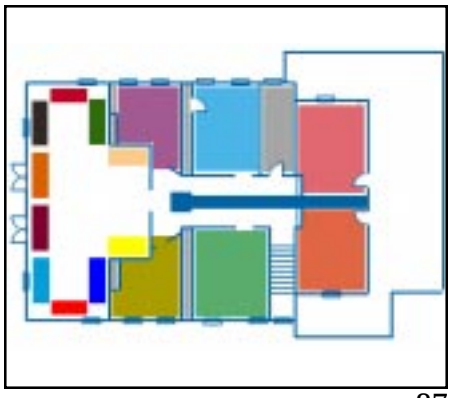
M1892 Colt revolver, .38 caliber. This was the type weapon used during the Spanish-American War and the Philippine Insurrection. It was withdrawn from service because of its failure to stop charging Moro natives in the Philippines and replaced by the M1911 sidearm. It is a cylinder-loaded, smokeless powder cartridge, conical lead and jacketed bullets, rifled bore. (Donated in memory of Capt. David A. Bujalski) (2123)

M1911A1 Colt automatic pistol, .45 caliber. This pistol was developed after the smaller bore .38 calibers were criticized as being incapable of stopping a charging Moro warrior during the Philippine Campaign of 1898-1900. Its original design was unchanged until 1926 when the back of the handgrip was shortened, the grip safety was lengthened, and a shorter, grooved trigger was substituted. This new model was called the M1911A1. The reliability of this model caused it to be the standard sidearm until the 1980s. (2169)

M1935 Colt automatic pistol, .380 caliber. This was the type of sidearm carried by general officers. (Courtesy Maj. Gen. Thomas H. Green) (2179)

M1917 Smith and Wesson revolver, .45 caliber. This was the personal weapon of Maj. Gen. Thomas H. Green who served in the cavalry along the Mexican border and later became the Judge Advocate General of the Army. The weapon was used in both World War I and II. (Courtesy Maj. Gen. T. H. Green) (2181)

M16 5.56mm U.S. rifle (also known in variations as the Armalite AR-15, the M16A1, M16A2, and the M231 Port Firing Weapon for the M2 Bradley Infantry Fighting Vehicle). The M16 weighs only 6 pounds, 5 ounces; can fire 800 rpm with a muzzle velocity of 3250 fps, and uses a 30-round detachable box magazine. It was developed by Eugene Stoner in the late 1950s and sold by its manufacturer, Armalite, to nations in Southeast Asia in the early 1960s. When it was adopted by the Army in 1963 for use by Special Forces and Airborne troops in Vietnam, it was manufactured by Colt and designated the M-16. NATO adherence to a common 7.62mm round precluded its use by U.S. forces in Europe until NATO changed the standard cartridge to a 5.56mm. (2183)



M1898 U.S. magazine rifle, "Krag-Jorgensen". Adopted in 1892 after being recommended by an 1890 Board, this .30 caliber, bolt-action rifle was a slightly modified version of a rifle used in the Danish Army. It was the U.S. Army's first magazine arm and, as such, could give rapid fire and easy loading. The model shown here was one of 262,548 made at the Springfield Armory between 1899 and 1904, when the model was discontinued. (2234)

"Brown Bess" flintlock musket. It was the official English Army weapon from 1703 until the percussion era, or about 1842. It could be loaded and fired six times per minute while others could fire only two or three times per minute. It became the standard weapon of the American Army. (2268)

M1860 Army Colt, .44 caliber. A Civil War sidearm. (Repro) (3365)

Turn-of-the-Century Officer's Quarters

Hat cord, gold, metallic. (0569)

Buckle, nickel plated, "F". (Courtesy D. R. Biggar) (0735)

Quilt coverlet, made by Maria Crook, sister of Brig. Gen. George Crook, Department of Arizona Commander. (Courtesy P. Pray) (0900)

M1875 Campaign Hat, officer's, black felt. (1062)

Prehistory at Huachuca

The history which enshrouds the Huachuca Mountains begins as long ago as 12,000 years when men, who hunted along the marshes
that are today the San Pedro River, launched their felsite-tipped spears into the spinal cord of a giant mammoth. The spear points and the elephant bones lay together undisturbed in the Arizona soil until the 1950s, when archaeological teams from the University of Arizona dug them up and established from them man's oldest known existence on the North American continent.

Indian cultures replaced and assimilated one another and U.S. Army-sponsored excavations at Fort Huachuca have uncovered villages from now extinct Indians called Hohokam (or O'otam) who lived along the streams that run off the mountains. It may have been these people who gave the area its name. "Huachuca" has been variously translated, from the language of those Indian tribes, who were the inheritors of the Hohokam tradition, as "thunder mountains" or "place where the bee-weed grows."

Archaeology at Fort Huachuca

In what is believed to be the first archaeological field expedition conducted under U.S. Army sponsorship, Jon Nathan Young supervised in 1964 the excavation of a 15th century, pre-Columbian, Hohokam Indian settlement in Fort Huachuca's Garden Canyon. The University of Arizona graduate student was assisted by a work crew which averaged about 15 enlisted men. The 11-week dig was curtailed by heavy rains and never resumed because of operational and budgetary demands of the Vietnam War.

HOHOKAM: Those Who Have Gone

The subtitle is an English translation of the Tono Ootam word for their ancestors and the culture which flourished in central and southern Arizona from several centuries before the beginning of the Christian era until historical times. The Hohokam had a highly developed culture. They cremated their dead with burial offerings and placed ashes in a specially prepared pit, and later in pottery urns. They made clay figurines, stone and wood implements, and a great variety of ornaments and decorations of beads, shell, turquoise, steatite, and argillite. Their skill in pottery making developed to a high degree of excellence. They were also great traders and Hohokam artifacts have been found in different regions. The items on display here were taken from the site excavated in 1964 in Garden Canyon.

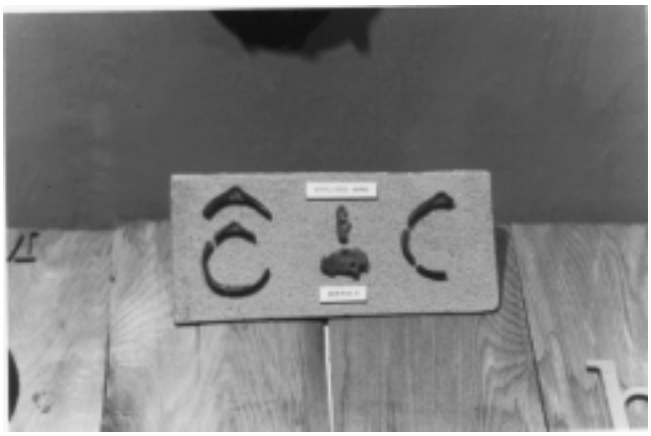
Judging by the polychrome pottery found there, the Garden Canyon village was occupied between A.D. 1400-1450, and maybe as early as A.D. 900. It was considered to be an important find because two kinds of houses were found here—one an above-ground adobe house, the other a sunken house or "pit house." This may have meant that two different groups of people lived here side by side or that village was in transition from one kind of dwelling to another. Both the above-ground adobes and the sunken pit houses were found to have some features in common. Both were rectangular and used three rows of interior posts to support the roof and had

dual centerposts, an almost identical building plan. The entrances always faced general east and were located in the middle of one of the longer walls. Just inside each doorway was a firehearth. Plaster was used to cover all of the walls.

Figurine, female. (2988) A clay figurine, 99mm long and Hohokam in style, portrays a human female.

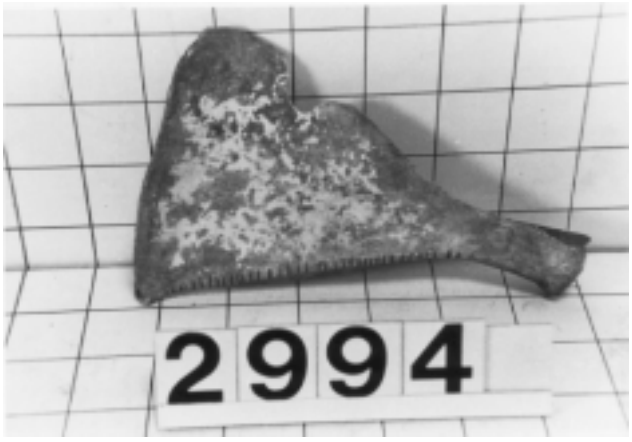
Jar, pottery. (2990) Although there was not enough time during the summer of 1964 to classify the 1,100 pounds of shards or nearly a ton of stone artifacts taken out of the site, some general observations were made. Besides the locally produced Babacomari polychrome, there were samples of Gila polychrome from the Tonto Basin; Tanque Verde, Rincon, and Rillito pottery from the Tucson area; a few shards of Trincheras Purple-on-Red from the area south of Tucson; and some polychrome examples from Chihuahua, Mexico.

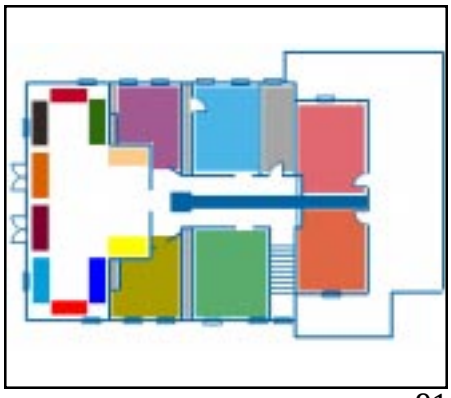
Shell, carved. (2992) The quality and quantity of the shell artifacts is a testimony that the people of Garden Canyon had reached a relatively high level of culture which could command artifacts or, perhaps, raw materials, which had their points of origin at least as far away as the Gulf of Mexico or the coast of California.



Vessel, clay. (2993)

Rasp, bone. (2994) Two rasps worked from deer scapula have some thirty notches carved in the spine of the scapula. The rhythmic sound made by rubbing a stick over the notches led the archaeologist to conclude: "Doubtless, this artifact is the prehistoric prototype of the raspas seen and heard in the present-day bands and orchestras of Latin-American derivation."





Jar, clay. (2995)
Pottery shards.

Selected Bibliography

Annual Report of the Secretary of War, Washington, D.C., Government Printing Office, 1884, 1885, 1886.

"Army Weaponry and Equipment," ARMY, October, 1986.

"Signal Corps, United States Army Full Dress, 1891-1902," Military Collector and Historian, Fall 1976.

Alger, John I., Definitions and Doctrine of the Military Art, Avery Publishing Group, Wayne, New Jersey, 1985.

Army Uniform Regulations, 1872-1912, Quartermaster's Department.

Brinckerhoff, Sidney C., "Troopers of the 4th Cavalry, 1886," Military Collector and Historian, Spring 1966, pp. 26-27.

Brinckerhoff, Sidney B., "Non-regulation Service Medals, 1916," Military Collector and Historian, Winter 1967, pp. 128-9.

Brinckerhoff, Sidney, "Camel Gun," Military Collector and Historian, Winter 1975.

Brinckerhoff, Sidney, Metal Uniform Insignia of the Frontier U.S. Army, 1846-1902, Arizona Historical Society, Tucson, AZ, 1972.

Brinckerhoff, Sidney, Military Headgear in the Southwest, 1846-1890, Arizona Historical Society, Tucson, AZ, 1963.

Brinckerhoff, Sidney, Boots and Shoes of the Frontier Soldier, Arizona Historical Society, Tucson, AZ, 1976.

Brophy, L. P., et al, The United States Army in World War II, Technical Services, The Chemical Warfare Service: From Laboratory to Field, OCMH, Washington, D.C., 1959.

Bruun, Michael, "1902 Service Dress Chevrons," Military Collector and Historian, Summer 1978.

Bruun, Michael C., and Gilbert A. Sanow II, "Uniforms for

America's Tropical Empire: The Evolution of the Khaki Coat for U.S. Army Enlisted Men, 1898-1913, Part 1," Military Collector and Historian, Summer 1983.

Bruun, M. C., "U.S. Army Service Dress Rank Chevrons, 1905-1926," Military Collector and Historian, Summer 1979.

Bryant, Charles M., "U.S. Revolver Holsters for the Colt DA Army Models 1892 and 1894, 1896, 1901, 1903," Military Collector and Historian, Winter 1976.

Bryant, Charles M., "U.S. Pistol Cartridge Boxes Issued for Use With the Colt Army Revolver, Caliber .38; Models of 1892, 1894, 1896, 1901 and 1903," Military Collector and Historian, Winter 1976.

Campbell, J. Duncan, "Badges for Early Birdmen," Military Collector and Historian, Summer 1958,

Chapman, Ted, et. al., "United States Special Forces," Military Collector and Historian, November 1963, pp. 19-21.

Chappel, Gordon, "United States Scouts, Enlisted Men, Full Dress, 1890-1902," Military Collector and Historian, Spring 1968, pp. 15-17.

Chappell, Gordon, "Civil War Signal Corps Officer's Insignia," Military Collector and Historian, Summer 1978.

Chappell, Gordon, "The 'Pillbox' Cap in the United States Army, c. 1866-1902," Military Collector and Historian, Spring 1980.

Chappell, Gordon, The Search for the Well-Dressed Soldier, 1865-1890, Arizona Historical Society, Tucson, AZ, 1972.

Cisneros, Jose, et. al., "The Corps of Rurales, Mexico, 1890," Military Collector and Historian, Fall 1967, pp. 85-87.

Copeland, Peter, "U.S. Army Signal Corps Service Dress, 1902-07," Military Collector and Historian, Spring 1966, p. 30.

Emerson, William K., Chevrons, Smithsonian Press, Washington, D.C., 1983.

Emerson, William K., "U.S. Army Enlisted Campaign Hat Insignia, 1890-1907," Military Collector and Historian, Winter 1977.

Emerson, William, "U.S. Army Enlisted Cap Insignia, 1905-1918," Military Collector and Historian, Spring 1977.

Emerson, William K., Chevrons: Illustrated History and Catalog of U.S. Army Insignia, Smithsonian Institution Press, Washington, D.C., 1983.

FM 21-13, The Soldier's Guide, Department of the Army, U.S. Government Printing Office, Washington, D.C., 1952.

FM 21-100, Basic Field Manual, Soldier's Handbook, U.S. Government Printing Office, Washington, D.C., 1941.

Freeborn, Dallas W., "The Evolution of the McClellan Cavalry Saddle," Military Collector and Historian, Summer 1979.

Garavaglia, Louis A., and Worman, Charles G., Firearms of the American West, 1803-1865, University of New Mexico Press, Albuquerque, 1984.

Gill, R. P., "A Signal Corps Officer, 1915," Military Collector and Historian, Summer 1975.

Gluckman, Arcadi, United States Muskets, Rifles and Carbines, Otto Ulbrich Co., Inc., Buffalo, NY, 1948.

Graham, John F., "The 1912 Cavalry Saddle and Equipment," Military Collector and Historian, Summer 1964, pp. 33-41.

Granfelt, Carl-Eric, "Apache Indian Identification Tags," Military Collector and Historian, Spring 1974.

Granfelt, Carl-Eric, "More on Apache Band Tags," Military Collector and Historian, Spring 1975, pp. 33-34.

Granfelt, Carl-Eric, "Indian Scout Identification Tag," Military Collector and Historian, Summer 1973.

Green, J. Edward, "Notes on the 1874 McKeever," Military Collector and Historian,.

Halsted, Bruce, "The 1912 Cavalry Equipment," Military Collector and Historian, Fall 1968, pp. 74-84.

Hedren, Paul L., "The Campaign Uniforms of General Crook,

1876," Military Collector and Historian, Summer 1978.

Hefter, J., "The Cuera Dragoons, 1730-1830," Military Collector and Historian, Fall 1964, pp. 80-83.

Hefter, J., "Villistas, 1913," Military Collector and Historian, Fall 1960, pp. 80-81.

Hogg, Ian V., and John Weeks, Military Small Arms of the 20th Century, DBI Books, Inc., 1985.

Hutchins, James S., "The Army Campaign Hat of 1872," Military Collector and Historian, Fall 1964, pp. 65-73.

Hutchins, James S., "Pistol Cartridge Pouch M1874," Military Collector and Historian, Fall 1960, p. 85.

Hutchins, James S., "Regimental Numbers on Helmet Plates," Military Collector and Historian, Winter 1956, pp. 111-112.

Jane's Military Vehicles and Ground Support Equipment, 1981, McGraw-Hill, New York, 1981.

Johnson, Raymond S., "369th U.S. Infantry Regiment (15th New York National Guard) 1918," Military Collector and Historian, Spring 1978.

Katcher, Phillip, "The Wearing of Service Stripes, 1861-1865," Military Collector and Historian, Spring 1978.

Kloster, Donald, "Uniforms of the Army Prior and Subsequent to 1872, Part II," Military Collector and Historian, Spring 1963, pp. 6-14.

Langellier, J. Phillip, "Uniforms of the Foot and Heavy Artillery, 1851-1895," Military Collector and Historian, Fall 1976.

Langellier, John, They Continually Wear the Blue, U.S. Army Enlisted Dress Uniforms, 1865-1902, Barnes-McGee Historical Military Publications, San Francisco, CA, 1974.

Langellier, J. Phillip, "From Blue Kersey to Khaki Drill: The Field Uniform of the U.S. Army, 1898-1901," Military Collector and Historian, Winter 1982.

Langellier, J. Phillip, and Brian Chin, "United States Cavalry, Lava Beds, 1872-1873," Military Collector and Historian,.

Larter, Harry, "Standards of the 10th U.S. Cavalry, 1888-90," Military Collector and Historian, Sept 1953, pp. 74-76.

Lewis, Edwin S. and Lt. Col. John H. Magruder III, "Captain Crawford's Battalion of Apache Scouts, 1885-86," Military Collector and Historian, Spring 1957, pp. 14-17.

Lowe, Percival G., Five Years a Dragoon: And Other Adventures on the Great Plains, University of Oklahoma Press, Norman, 1965.

Manders, Eric I. and Wayne A. Colwell, "The Camel Expedition to California, 1857," Military Collector and Historian, Winter 1966,
pp. 124-25.

Mayo, L., et al, The United States Army in World War II, Technical Services, The Ordnance Department: Procurement and Supply, OCMH, Washington, D.C., 1960.

McBarron, H. Charles, "1st US Dragoon Regiment, Undress Uniform, 1845-51," Military Collector and Historian, Dec 1952, pp. 96-97.

McBarron, H. Charles, Jr. and Tom Parker, "1st U.S. Dragoons, 1858-61, Military Collector and Historian, Spring 1957, pp. 16-17.

McBarron, H. Charles, Jr. and Harold Peterson, "Soldiers of the Onate Expedition, 1597-98," Military Collector and Historian, Sept 1953, pp. 71-2.

McBarron, H. Charles, Jr. and Frederick P. Todd, "2d US Cavalry Regiment, 1861-65," Military Collector and Historian, Sept 1952, pp. 68-69.

McChristian, Douglas C., "The Model 1876 Cartridge Belt," Military Collector and Historian, Fall 1982.

Miller, Robert L., "Waist Belt for Sword Bayonet, U.S. Model 1855,"
Military Collector and Historian, March 1951, p. 24.

Mills, Anson, My Story, privately published, Press of Byron S. Admas, Washington, D.C., 1918.

Ordnance Memoranda No. 29, Horse Equipments and Cavalry Accoutrements, Government Printing Office, Washington, D.C., 1891.

Ordnance Memoranda No. 18, Proceedings of the Board of Officers, Horse Equipments, etc., Government Printing Office, Washington, D.C., 1874.

Parker, H. S. and Rowland P. Gill, "Civilian Pattern Straw Hats Used as Army Fatigue Wear in the 1880s," Military Collector and Historian, Spring 1958, pp. 21-22.

Peterson, Harold L., Notes on Ordnance of the American Civil War, 1861-1865, The American Ordnance Association, Washington, 1959.

Peterson, Harold L., The American Sword, 1775-1945, Ray Riling Arms Book Company, 1973.

Peterson, Mendel L., "American Army Epaulettes, 1814-1872," Military Collector and Historian, March 1951, pp. 1-14.

Peterson, Harold L., "Origin of the Model 1913 Cavalry Saber," Military Collector and Historian, June 1952, p. 50.

Phillips, William G., "Emerson Steel Bayonet Scabbard 1862," Military Collector and Historian, Fall 1969, pp. 97-98.

Pretty, R. T., and D. H. R. Archer, Jane's Weapons Systems, McGraw Hill, New York, 1972.

Quartermaster Supply Catalog, WAC and Nurses Clothing and Equipment, April 1944.

Quartermaster Supply Catalog, QM 3-1, Enlisted Men's Clothing and Equipment, April 1944.

Rickey, Don, Jr., Forty Miles a Day on Beans and Hay, University of Oklahoma Press, Norman, OK, 1963.

Rila, Carter, "The Development of the U.S. Army Infanty Field Equipments, 1903-1956," Military Collector and Historian, Summer 1969, pp. 35-43.

Rilling, Ray, "A Description of the U.S. Infantry Equipment Pattern of 1872," Military Collector and Historian, Winter 1957, pp. 91-94.

Risch, Erna, The United States Army in World War II, Technical Services, The Quartermaster Corps: Organization, Supply and Services, Volume 1, OCMH, Washington, D.C., 1953.

Schreier, Konrad F., Jr., "U.S. Army Field Artillery Weapons, 1866-1918," Military Collector and Historian, Summer 1968, pp. 40-45.

Schreier, Konrad F., "The U.S. Army 3-Inch Field Gun Model 1902," Military Collector and Historian, Winter 1973.

Serven, James E. "The Winchester in Warfare," Military Collector and Historian, Winter 1956, pp. 91-4.

Sharples, Ed, "The Doughboy's Pack," Military Collector and Historian, Spring 1976.

Stamatelos, James, "7th United States Cavalry Regiment, 1916-1917," Military Collector and Historian, Fall 1975.

Steffen, Randy, "Fifth Regiment of Cavalry, 1874," Military Collector and Historian, Spring 1965, pp. 15-17.

Steffen, Randy, The Horse Soldier, 1776-1943, four volumes, University of Oklahoma Press, Norman, OK, 1978.

Terrett, D., The United States Army in World War II, Technical Services, The Signal Corps: The Emergency, OCMH, Washington, D.C., 1956.

The Officers' Guide, The Military Service Publishing Company, Harrisburg, PA, 1943.

Townsend, Frank C. and Frederick P. Todd, "Branch Insignia of Cavalry and Armor, 1972-1956," Military Collector and Historian, Summer 1956, pp. 35-39.

Townsend, Frank C. and Frederick P. Todd, "Branch Insignia of Regular Cavalry, 1833-72, Military Collector and Historian, Spring 1956, pp. 1-5.

Utley, Robert M., Frontier Regulars, The United States Army and the Indian, 1866-1890, Macmillan Publishing Co, NY, 1973.

Van Orden, Jay, "McClellan Saddle Modification of 1893 and the McClellan Saddle, Model 1896," Military Collector and Histo-

rian, Summer 1973.

Wike, John W., "Uniforms in Crook's Command," Military Collector and Historian, June 1952, pp. 49-50.

Wischnowski, Edgar A., "Official Drawings for the U.S. Army Uniform Regulations of 1851," Military Collector and Historian, Summer 1958, pp. 43-45.

Wischnowski, Edgar A. "Official Drawings for the U.S. Army Uniform Regulations of 1851," Military Collector and Historian, Spring 1958, pp. 17-19.

Circa 1750 Spanish field gun. Although this cannon was found in the Philippines, it is the type used by the Spanish colonists in today's American southwest in the middle of the 18th century. It is a field gun mounted on a crude wooden carriage. This kind of short barreled 2-pounder could be used on the walls of the frontier presidios or carried into the field for use against Indians. (2304)

The Blistering Marches of the "Army of the West"

In May of 1846 when war broke out with Mexico, Col. (later Brig. Gen.) Stephen Watts Kearny was empowered to organize an "Army of the West" which would march through today's American Southwest, conquering it for the United States. Arriving from Fort Leavenworth, Kansas, Kearny occupied Santa Fe and from there sent out three columns. The first, under Col. Alexander W. Doniphan, marched south to cross the Rio Grande near El Paso, where they defeated a large force of Mexican militia near Chihuahua. The second, under Lt. Col. Philip St. George Cooke,

opened a wagon road from Santa Fe to San Diego. The last column, commanded by Kearny himself, struck out across Arizona along the Gila River on its way to conquer California. That objective had already been accomplished by Capt. John Charles Fremont and Com. Robert F. Stockton however, and Kearny only encountered stiff resistance from California lancers at the Battle of San Pascual.

Philip St. George Cooke, the Mormon Battalion and the Battle of the Bulls

Leading a unique contingent of the Army of the West in 1846, Lieutenant Colonel Cooke blazed a wagon trail through Arizona to San Diego. His Mormon soldiers, hoping to finance the move of their church members to Utah with the Army pay, endured untold hardships in their 3-month trek. Cooke wrote in his official report that "marching half naked and half fed, and living upon wild animals, we have discovered and made a road of great value to our country." The road they opened proved to be valuable to the men who streamed to California's gold fields in 1849. A comic incident occurred on the San Pedro near the Huachuca Mountains when the column was attacked by a herd of wild bulls.

Emory's Notes of a Military Reconnaissance

A hero of the Battle of San Pascual during the Mexican War in 1846, and an able Civil War division commander, William Hemsley Emory was the epitome of the dedicated soldier-scientist. Twice he ranged over the unexplored Southwest. The first time in 1846 with General Kearny's Army of the West, Emory mapped what is now southern Arizona, examined its diverse natural resources, and submitted to Congress his *Notes of a Military*

Reconnaissance, the first reliable information about the area. After the war with Mexico, he spent 6 years in the same part of the country surveying the new, unresolved boundary with Mexico. His three-volume *Report of the United States and Mexican Boundary Survey,* published between 1856 and 1859, is an encyclopedic portrait of the American southwest unparalleled in the sheer volume of accumulated data. Emory judged the dry deserts to be mostly unsuitable for farming but thought they might "be settled by a mining and pastoral population."

The Army of the West

Uniforms. The Dragoons were uniformed for the field in dark blue flannel jackets, trimmed with yellow lace, the markings of cavalry troops for decades to come. Their pantaloons were a mixture of blue-grey flannel with officers and NCOs having a yellow stripe down the legs. In 1851 the distinguishing color for dragoons became orange. Their headgear was the distinctive collapsible leather forage cap. Their saber belts, with shoulder straps, and carbine slings were of white buff leather. They rode behind company guidons of red and white with the word "Dragoons" lettered across it.

By the time they reached California, their uniforms were in tatters and a number of expedients had been adopted. General Kearny himself was an example. He was described upon his arrival in California by a lieutenant stationed there, William T. Sherman. The General of the Army of the West had "an old dragoon coat on, and an army cap to which the general had added a broad visor, cut from a full-dress hat to shade his eyes against the glaring sun of the Gila region."

As for the volunteers, they were furnished an annual clothing allowance of $42 and their uniforms were often arbitrary. Many of the Missouri volunteers would ride into Mexico garbed in Navaho buckskins traded from the Indians. At least one unit, the German Artillery, Company B from St. Louis, was according to a newspaper account "handsomely uniformed in grey coats of Kentucky jeans, and grey pants, with yellow stripe, forage caps, new Spanish saddles, saddlebags, bridles, holsters, and two new blankets.... The men are all, apparently, from twenty to forty years of age, very nearly of the same size and height."

Weapons. Hanging from the saddle was the Model 1840 heavy dragoon saber. In a blanket roll strapped to the rear of the saddle were his mess kit, a metal plate, knife, fork and spoon, and a tin cup.

The soldier's arms were usually a Model 1842 single-shot, muzzle-loading percussion pistol and the Model 1843 Hall single-shot, breech-loading percussion carbine.

The carbine was a short-barreled long arm designed with the mounted

soldier in mind. He could breech load it in the saddle and, because the dragoon was also expected to fight as infantry, it came equipped with a triangular rod bayonet stored in the forestock. With the model of 1834 it became a .54 caliber smoothbore, foregoing some accuracy so that it could accommodate buckshot. The model of 1843 was a .52 caliber smoothbore rifle with a 21-inch barrel. The Hall carbine was the standard arm for the Dragoons for thirty years where they "received the most unqualified approbation," but problems with gas leaks caused the Ordnance Department to search for another model.

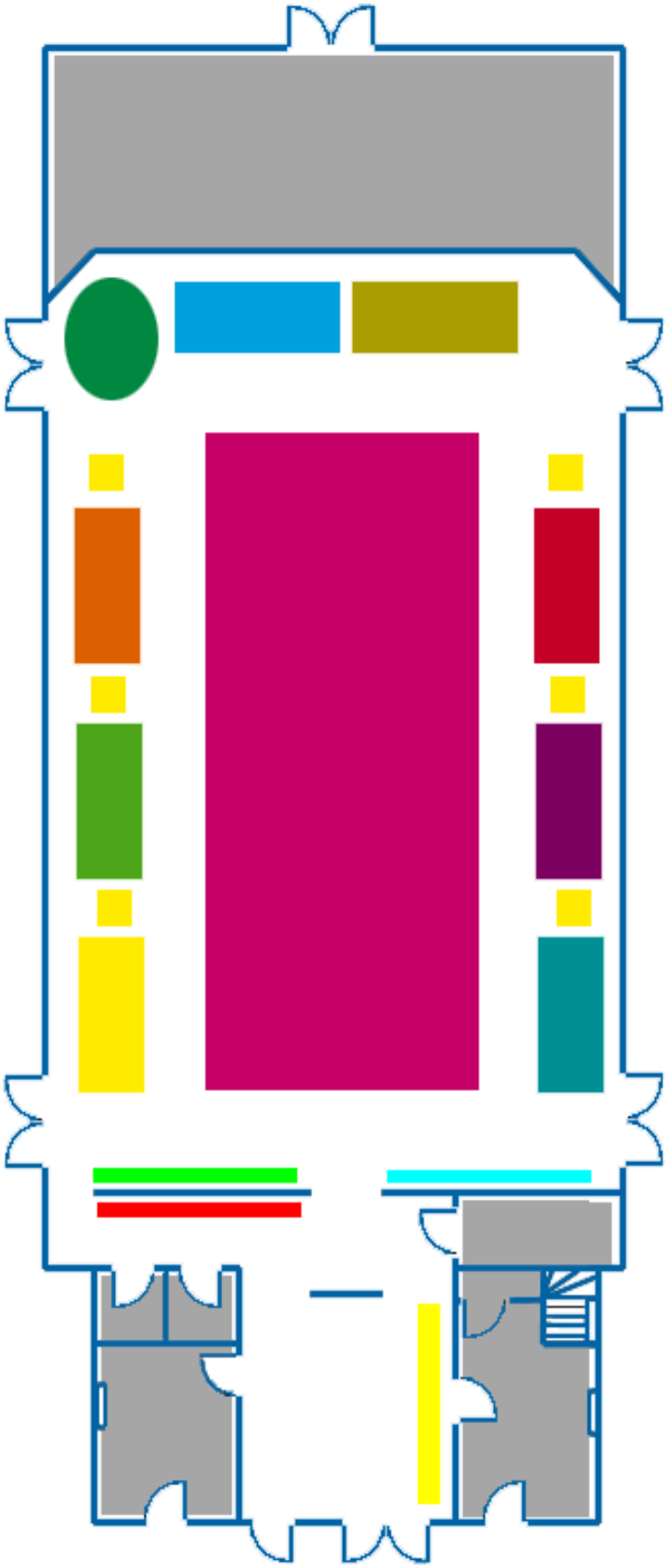
The Hall's had another interesting feature. The breechblock could be fired when removed from the gun. While this had some drawbacks, such as the failure to fire when not properly reinserted, it was a decided advantage to dragoon Sam Chamberlain who was in Monterrey in 1847. He woke up in a cantina surrounded by Mexican guerrillas but was determined not to give up without a struggle.

With a bound I sprang behind a large table used for a bar, drew the chamber of my Hall's Carbine (that I always carried in my pocket), said a short prayer and stood cool and collected, at bay before those human Tigers, guerillars. There was one grizzly old fellow who seemed more ferocious than the others; he had but one eye that glared on me with the fierceness of a wild beast. He rushed for the table as if he would spring over, when the sight of the little iron tube pointing straight for his solitary optic caused him to pause. A few tallow dips cast a feeble light on the savage faces in my front; cries of '*Muerte! Muerte! el ladron Americano, que meure el yanqui burro*' came from all parts of the room, but none offered to strike. For the moment twenty brigands were held at bay by the strange weapon which they seemed to know was sure death to one of them, then there was a rush to the corner where their Escopettes were piled.... Gathering all my energies, I struck out with my left and landed a terrific blow on the single glaring eye of my grizzly foe, as he went down I grasped his knife, kicked over the table, and with a wild yell rushed for the door.

Even though the Halls was widely liked by the Dragoons, the Ordnance Department sought an improved firearm. A carbine patented by William Jenks in 1838 was given a trial in the Dragoons, as was Samuel Colt's ring-lever revolving rifle. Some of these weapons saw service in the Army of the West.

Many of the volunteers in the First Missouri Mounted Rifles were equipped with the Hall breechloader, a percussion rifle that went into production in 1841. Some 3,000 of the rifles were made at Harper's Ferry before the Army stopped production because of a gas leak between the barrel and breechblock, a leak that reduced the muzzle velocity.

Most of the volunteers, however, were issued old muzzle-loading flintlocks, probably the 1817 model. Marcellus Ball Edwards of the First



Museum Annex, Bldg. 41305 (5,679 sq. ft.)

Missouri describes problems he had with getting the flintlock to fire. After disassembling and cleaning the piece, he put it back together and, making sure there was no powder in the pan, pulled the trigger. It went off, "making a sizeable window in our tent by burning."

Also prevalent among the volunteers was the Model 1841, .54 caliber, muzzle-loading, percussion rifle, known popularly as the "Mississippi Rifle" because of its use in the Mexican War by Jefferson Davis' Mississippi Volunteers. It was a dependable rifle and favored by soldiers and civilians alike. Over 60,000 of these would be made for the Army.

The new pistol carried by regular Army officers and NCOs was the Model 1842 .54 smoothbore, single-shot percussion pistol made by Springfield Armory and by contractors Ira Johnson and Henry Aston. Still in service among many of the regulars and most volunteers was the Harper's Ferry Model 1805 flintlock, called by Philip St. George Cooke his "old Harper's Ferry 'buffalo slayer.'" [Garavaglia, 125ff.] Other pistols to be found in the Southwest were the M1819 .54 caliber with 10-inch barrel; and the M1836 Johnson model .54 caliber with a 8 1/2-inch barrel.

A revolutionary new firearm began to find its way into the hands of the officers and men of the Army of the West. It was a revolver designed by Samuel Colt in 1842 and improved in 1846. The Colt revolver was the first successful repeating firearm, its worth proved during the Seminole War. Mountain men like Kit Carson and Army officers on the frontier found it a most useful weapon while in the saddle and during running battles with the mounted Indians of the West. U.S. Army Cavalry officers reported that it was as effective at 100 yards as the rifled carbine and better than the musket up to 200 yards.

The War Department scoured second-hand gun shops to buy up all the Colts it could of the first run of 5,000. In 1846 they awarded Samuel Colt two successive contracts for 1,000 each. So popular and hard to find were these hand guns that Colt could not even find one of the 1842 series to use as a model. The 1846 model was made from memory and simplified. It would be entirely machine-made, the machinery being a collaboration between Colt and the son of Eli Whitney who was operating the Whitney Army Company of New Haven, Connecticut, and in 1846 was busy converting Army muskets into "Harpers-Ferry" percussion-cap rifles. When Colt eventually set up his own plant at Hartford, it was one of the first examples of the American system of manufacture that would make the United States the world's leading industrial power.

Equipment. The standard Army saddle used by most of the First Dragoons was the M1841 Dragoon Saddle. Another saddle seeing use by Dragoons at this time was the Model 1844 Ringgold, patented by an Army major of that name. But it was not popular among its users in the Dragoons or Artillery. Only

1,147 Ringgolds were made and the Army bought fewer than 500 after the Grimsley saddle was found to be much kinder to a horse's back.

Across the back of the saddle was carried a valise into which was packed the dragoon's personal items of equipment. A *Systems of Tactics*, published in 1834, described the valise and its contents:

The valise ought to be made of stout leather; and should be eighteen inches long, eight inches wide, and six inches deep, and should be limited to the following articles: two shirts, one pair of stockings, one handkerchief, one stable jacket, one pair of gloves, one pair of overalls (trousers), a forage cap, and shaving case; all to be neatly folded and packed, and the articles most in use to be placed uppermost. In the flap, one pair of shoes, a fatigue apron (stable frock), clothes brush, spoon, blacking, whiting, and a knife. [Steffens, v.1., 146]

A number of the officers of the 1st Dragoons made the long ride to California seated on a Grimsley saddle, named for its maker, Thornton Grimsley of St. Louis. But the saddle had its origins with the commander of the Army of the West who had formerly commanded the 1st Dragoons, Stephen W. Kearny. When a colonel in 1844, Kearny had submitted a pattern for the saddle to the Quartermaster General, based on the needs of mounted men in Indian service. It used for the first time wet rawhide to encase the wood tree, giving it greater strength and eliminating the heavy iron bands that held the Ringgold tree together.

The Grimsley saddle was so enthusiastically received that most dragoon officers managed to obtain one before they became the official Army issue in 1847. The board of officers charged with evaluating the saddle included Kearny and many of his commanders. The board extolled the advantages of the Grimsley model in its official report.

...Combining strength, durability, peculiar fitness to the horse's back and convenience for military fixtures, this pattern more than any other yet furnished for Dragoon service, gives an erect posture, and easy seat to the rider, at the same time that little or no injury is done to the horse's back on the longest marches. Some of the members of the Board have had the fairest opportunity of testing the merits of this saddle, having used it on marches of more than 2,000 miles in extent, and the result has been in every instance to confirm their belief in the superiority of this saddle over any other which has come under their observation. In outward appearances this saddle resembles the French Hussar saddle more than any other with which the Board is familiar; it combines all the conveniences of the French saddle for attaching military and cavalry appurtenances, with the indispensable qualities requisite in a service tree. To prevent injury to the horse's back, the "side bars" are so formed as to *fit* the back bearing equally throughout their whole extent; and the forks of the high pommel and cantle are, in every case, and under all the circumstances of reduced flesh, raised above the withers and backbone of the horse. [Steffens, *Saddles...*, 44]

A distinguishing feature of the dragoon of 1837 onward to 1851 was the white buff leather saber belt with a supporting shoulder strap. (Some were known to have been dyed black after 1839.) On the belt was carried the M1840 heavy cavalry saber and black leather pistol cartridge box and carbine cartridge box. Both contained tin liners and bore an embossed "US" on the leather flap, a change from the old eagle under a scroll bordered with

leaves. The carbine cartridge pouch had a pocket for carbine tools sewn on the front. A M1839 carbine sling was also issued in white buff leather. It was 2 1/2 inches wide and 56 inches long, and identical to the later Civil War pattern. After 1837 a tin canteen made its appearance and would be carried on the saddle as well as the old wooden canteen that had been standard since the War of 1812.

Sometime around 1837 a swallowtail guidon, the upper half red, the lower half white, was issued to companies. It bore the letter of the company and the number of the regiment. In 1863 this pattern was changed to a stars and stripes design. At the same time a regimental American eagle, on a field of dark blue, over a banner with the designation of the regiment. The standard was fringed in gold or yellow. This design would be carried by regiments until 1887 when the background colors were changed to coincide with the colors of the branch of service.

M1833 officer's full dress uniform. The history of the U.S. Army in the Southwest does not begin until Stephen Watts Kearny led his Army of the West from Fort Leavenworth into

Santa Fe, New Mexico in 1846. Kearny's full dress uniform, when he set out from Kansas with the rank of colonel, was the model of 1833. That was the year the 1st Dragoons was organized.

The M1833 Officer's full dress uniform would be the standard for eighteen years, until 1851. The full dress uniform was a dark blue wool trimmed in gold lace. Its distinctive features were gold lace rectangles on the cuff to indicate rank. A subaltern would have two slashes, a captain would have three, and a field grade officer would have four. The field officer would also have double, 3/4-inch gold lace stripes, with a 1/4-inch between them, running down the seam of the trousers while company officers would have two 3/4-inch stripes of yellow cloth. Epaulettes were worn which varied according to rank. The 1832 uniform regulation called for a colonel's epaulette to be of "bright bullion, half an inch diameter, three inches and a half long; plain lace strap, ornamental with an embroidered spread eagle; the number of the Regiment to be embroidered within the crescent; crescent solid; eagle and number to be silver where the bullion is gold, and gold where the bullion is silver." (Repro)

M1833 Dragoon officer's cap. The officer's cap, with its white horsehair plume, differed from the enlisted man's cap in the gilt, rather than brass, ornaments; gold flat-braid instead of worsted wool. The M1833 Dragoon helmet plate was a gilt star upon which was imposed a Napoleonic silver eagle. (Repro)

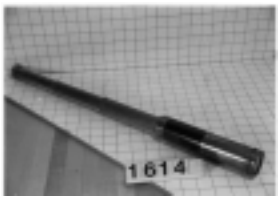
M1833 belt plate. Bearing the letter "D" for Dragoons, it is cast in brass with the "D" and laurel wreath in raised silver. (Repro)

M1841 canteen. It is a wooden canteen of the type that had been used since the war of 1812. (Repro)

M1847 Grimsley saddle. A number of

officers of the 1st Dragoons made the long ride to California seated on a Grimsley saddle, named for its maker, Thornton Grimsley of St. Louis. But the saddle had its origins with the commander of the Army of the West who had formerly commanded the 1st Dragoons, Stephen W. Kearny. When a colonel in 1844, Kearny had submitted a pattern for the saddle to the Quartermaster General, based on the needs of mounted men in Indian service. The Grimsley saddle was so enthusiastically received that most dragoon officers managed to obtain one before they became the official Army issue of 1847. (Repro)

Circa 1840 telescope, brass. (Courtesy Bruno Rolak) (1614)



"Samuel Whitside," sculpture, bronze, by Don Cox, 1982. (Courtesy Mrs. Emil Lenzner in memory of her husband, Maj. Gen. Emil Lenzner) (1579)

The Dragoon Era

Uniforms. The Army uniform underwent some extensive changes in 1851, the year that Fort Defiance became the first Army post to be established just inside of what is today the State of Arizona. Maj. Gen. Winfield Scott signed General Orders 31 on 12 June 1851 which announced and described the uniform change. The orders required that "The articles of the old uniform already manufactured for enlisted men will be issued until exhausted, but will be first altered, so far as practicable, to correspond with the new pattern. In no instance will the two different patterns be furnished to troops stationed at the same post." The officers had 6 months in which to conform to the new regulations, during which time they could continue to wear their old uniforms. This paragraph is important because this policy of thrift would continue over the rest of the century. Items of clothing and equipment would be used up before new issues of new patterns would be made. The 1851 regulations for the uniform were the most comprehensive that had been written until that time.

In an effort to live within the austere budget set for the Army, only a single uniform was to be worn on all occasions, whether on full dress parade, in the field, or on fatigue duty. The color of the trim on the Dragoon uniform was orange, emerald green for mounted riflemen, light blue for infantry, and red for Artillery. In 1854 the "Saxony blue" of the Infantry was changed to sky-blue.

The M1851 frock coat was authorized for both officers and enlisted. For officers, the frock coat would remain essentially unchanged until 1892. Company officers had nine buttons in a single row while field grade officers sported a double, parallel row of nine buttons each. The same idea would carry over to the M1854 shell jacket. The shell jacket was designed for mounted troops since the frock coat was cumbersome when riding. This jacket looked much like the M1833 jacket which had been worn by mounted men up until 1851 but had a lower collar and sleeves that were fuller in the elbow to allow more freedom of movement.

There is a story that ornamental sleeve buttons were originally designed to prevent the soldier from wiping his nose on the sleeve of his dress uniform.

The all-purpose M1851 cap, with its leather bill and brass American eagle plate

and pompom, was replaced among the dragoons in 1858 by the "Jeff Davis" hat.

All enlisted men wore M1851 brass shoulder scales which were discarded during the Civil War fighting.

Dragoons wore a gold crossed sabers, edges up, insignia on the caps, with a silver regimental number above the intersection. Mounted riflemen wore a bugle standing on its bell with the regimental number in the loop.

The 1851 uniform regulations reversed the way the chevrons had been worn on the field jackets. Since 1847 they were worn with the points up as they were in the 20th century, except on the dress uniform. Now they were worn with the points down, as they were before 1847 and would remain points down until after the end of the 19th century.

The M1851 belt plate was rectangular and bore the American eagle case all in one piece of brass, with a silver wreath affixed below. It would be the standard saber belt buckle for years to come for both enlisted and officers. Enlisted men received a new buckle pattern in 1872 while the officers wore the 1851 design until 1902.

After 1851, all of the leather in belts, hats and horse equipments would be black instead of the white buff leather that had been customary earlier.

In 1855 the first two regiments of Cavalry in the U.S. Army were organized and regulations issued for their uniforms and equipage. Their distinguishing color would be yellow. They would wear a new hat, the M1854, with the brim rolled up on the side and one or more yellow feathers on the other side. They would have the same M1854 shell jacket that was worn by Dragoons and Mounted Riflemen.

In the 1855 regulations, hat cords were specified for the first time. For officers they would be of gold cord with gilt acorns on the end, and for enlisted they would be made of yellow worsted cord. In 1858 the cords for enlisted men were changed to a tasseled end instead of the acorn and became known as the "Civil War" type.

The black felt hat has been known as the "Jeff Davis" hat, since it was said to have been designed by the Secretary of War himself. It was also known as the "Kossuth" hat, the "Hardee" hat and by other names. The cavalrymen had the hat to themselves for four years. The dragoons and mounted riflemen continued to wear the M1851 hat with pompom until 1858 when new orders authorized the M1854 hat to be worn by all officers and enlisted men. A chin strap was added in 1859. Despite its dashing look, the hat had its detractors, like the old-timer who said, "If the whole earth had been ransacked, it is difficult to tell where a more ungainly piece of furniture could have been found." [Utley, 24]

All officers, with the exception of artillery and infantry, wore the brim fastened up on the right side with a brass eable plate. The dismounted troops rolled the brim up on the left side, also using the standard

eagle fastener. Enlisted men followed the custom of their officers.

The number of feathers worn on the hat signified rank. An enlisted man wore one, company grade officers had two, field grade officers and officers of the general staff rated three.

A hat insignia of black velvet with the insignia of their arm of service embroidered upon it were worn by officers. The enlisted men had to settle for a worsted cord the color of their arm, with a brass letter denoting their company below the insignia. The insignia for the Dragoons remained the crossed sabers with edges up and the mounted riflemen retained their bugle standing on end. The cavalryman adopted the crossed sabers of the Dragoons, but with the edges down. Just months after this insignia was arrived at, a revision called for the cavalrymen to wear the same insignia as the dragoons. The 24 June 1858 revision called for dragoons to wear their regimental numbers in the upper angle of the hat insignia and the company letter in the lower angle. This placement was reversed for cavalrymen.

The old white, loose-fitting shirt was changed to a gray color by the 1857 regulations.

Regulations of 1857 (1858?) changed the color of all trousers, officer or enlisted, to dark blue and authorized a 1 1/2-inch-wide stripe on the leg for sergeants and a 1/2-inch leg stripe for corporals. In December 1861, with few dark blue trousers having been issued, the Army reverted to the sky-blue trousers and so they would remain until 1902.

1858 regulations authorized a four-button sack coat for field wear and a forage cap that was described in general orders:

> For fatigue purposes Forage Caps, of the pattern in the Quartermaster General's Office, will be issued, in addition to hats, at the rate of one a year. Dark blue cloth, with a cord or welt around the crown, of the colors used to distinguish the several arms of service, and yellow metal letters in front to designate companies. The unassigned recruits dark blue cord or welt around the crown and without distinctive badge.
>
> Commissioned officers may wear caps of the same pattern with dark blue welt and the distinctive ornament, in front, of the corps and regiment.

The "bummer" cap would be worn until 1872 regulations revised the pattern.

The hard campaigning in the West made individualists even out of soldiers who usually respected the smartness of uniform appearance. On duty at western posts far from the supply depots and the stern eye of high-ranking officers, they often adopted field expedients. In a letter home, Lt. E. Kirby Smith of the 1st Cavalry described his attire while on campaign in 1856:

> ...I wish you could see me in my scouting costume. Mounted on my mule...corduroy pants; a hickory or blue flannel shirt, cut down in front, studded with pockets and worn outside, a slouched hat and long beard, cavalry boots worn over the pants, knife and revolver belted at my side and a double barrel gun across the pommel, complete the costume as truly serviceable as it is unmilitary. [Steffens, v.2, 65]

Here are several more first-hand descriptions of the unmilitary costuming of the soldiers west of the Mississippi in the 1850s. In Texas in 1856 the Mounted Rifles "drill with blue flannel hunting shirts and felt hats." In Kansas in 1857 "Every man is wearing a broad-brimmed hat, each of a different color; white trousers of rough material; a woolen shirt of red, green, blue, or brown...usually open in front and worn like

a coat." On the Pacific coast in 1858, the soldiers were "begrimed with mud and rain and dust. The Artillery and Infantry wore blue flannel shirts drawn over their uniforms and belted at the waist; the Dragoons had a similar dress of grey flannel. The officers had adopted the same, with slouched hats. The only marks of their rank were the shoulder-straps sewed on to the flannel." [Utley, 24-5]

Up until 1857 only soldiers in the mounted arm were allowed to wear moustaches. Now regulations lifted the ban so that all were free to sport short and neatly trimmed facial hair.

Weapons. It was an age of several key advances in weaponry with the advent of breech-loading shoulder arms, percussion-cap ignition systems, repeating carbines and revolving six-shot pistols. The soldiers could load more rapidly and fire more rounds with improved accuracy. A principal innovation was the Minie ball, pioneered by a French captain of that name. He invented a lead elongated bullet that would expand when the explosion of the powder sent an iron plug into it. The expanding lead ball would be set spinning by grooves rifled into the bore.

The "Walker" .44 caliber model Colt, which followed the "Paterson" Colt, was named for Captain Sam Walker of the Mounted Rifles who collaborated with the inventor to come up with a design that could be recognized by its square-backed trigger guard. They were issued to the Mounted Rifles in 1847. The heavy-framed Walker Colt was improved and issued in 1848 as the Colt Dragoon.

The decade of the 1850s was the era of the Colt Hartford Dragoon pistols, the First, Second and Third models. The First Model Dragoon was a .44 caliber refinement of the earlier Walker model and had a 7 1/2-inch barrel. Made between 1848 and 1850, it differed from later models in its oval cylinder stops. The second Dragoon Colt was a more reliable revolver for field use and made in 1850 and 1851. Gen. William S. Harney considered the arm "perfect for Dragoon service particularly when opposed to the western prairie Indians. It is the only weapon with which we can subdue these wild and daring tribes unless we can have at least three regiments on the Texas frontier alone." [Garavaglia, 148]

The Third Dragoon pistol was distinguished from the first two models by its trigger guard which was rounded in the back rather than squared. It was manufactured from 1851 to 1860 when it was made obsolete by the M1860 Army Colt. After 1855 the Third Model Dragoon could be converted into a carbine by the attachment of a shoulder stock and some of these pistol-carbines were issued to the 2d Dragoons in Texas around 1858.

The cap and ball Colt Dragoon pistol was unanimously applauded by its users who now had the advantage of firing six shots from horseback without reloading. The weapon had some competition from the M1851

Navy. A 2d Dragoon officer, speaking of the Colt, remarked that it "gives strength and confidence of numbers and inspires the savage with dread." [Utley, 27] Another enlisted dragoon concurred, putting his finger on the advantage technology gave the outnumbered American soldier in the War. The Indians, he claimed, "had learned enough to convince them that the superiority of the soldier was in his arms, not in his horsemanship...nor in his strength and prowess as a warrior." [Utley, 25]

Lt. Col. Philip St. George Cooke went so far as to abandon all Cavalry weapons with the exception of the Colt when he wrote in 1857:

> I would solve the difficulty of selection [of a suitable arm for mounted units] by discontinuing the use of any fire arm, other than Colt's large six shooter, with which they are now armed. The loss will be—nothing. The revolvers will hit and kill at one hundred and fifty yards. The long gun, used mounted, is more apt to miss than the revolver; from the use of the bridle hand in aiming it. The revolver is six times as good an arm for the duty of sentinels.
>
> These opinions are founded on an experience of wilderness marching and Indian fighting, greater I believe than that of any other officer of our arm....
>
> I have taken the responsibility of marching without long arms and may do so again. But it led to a very sharp censure—by a Commander, however, of very little experience and acquaintance with Cavalry service and duty. [Garavaglia, 203]

Pistols were carried in a socket attached to the saddle until 1855 when they were authorized to be worn on the belt of the new regiments of cavalrymen.

In the 1850s the old Hall carbines of the Dragoons were turned in for the M1847 Springfield .69 caliber Cavalry Musketoon. Recommended by a Ordnance Board for adoption in 1847, it did not become the standard issue to dragoons until about 1851. It was originally a smoothbore weapon with brass mounts. With the advent of the elongated ball or bullet, the M1847 was rifled. It was further modified by adding a leaf sight, removing the sling ring and replacing it with sling swivels fastened to the butt stock and lower band. The result was the model of 1851. Some 6,700 were made between 1847 and 1859.

In the early 1850s, the shoulder arms finding their way into the Department of New Mexico were muskets that had been converted from flintlock to the "Maynard" lock by adding a mechanical priming device patented by a Washington, D.C., dentist, Dr. Edward Maynard, in 1845. His device was a "tape primer" that, like a child's cap pistol, had spots of mecury fulminate spaced at equal intervals along a rolled strip of varnished paper. The paper would be advanced when the musket was cocked, and the hammer would ignite the mecury fulminate which would in turn fire the powder of the cartridge. This saved time as the soldier did not have to fish a cap from his pouch each time he reloaded, and he could fire more rapidly. Two thousand flintlock muskets were ordered to be converted in 1849 and they started reaching the men in the Southwest over the next few years.

A lieutenant in the Eighth Infantry in Texas reported:

> My company was furnished with these muskets in Sept. 1851-ever since that time they have been in constant use, on guard, escorts, & c. I have never known them to be damaged from firing, nor do they miss oftener in firing than the common percussion muskets. The great advantage the

Maynard patent possess over the others is the rapidity with which they can be fired—at least three shots to two of any other musket—besides they can be fired with caps if necessary.... For my own use or for the use of my company I much prefer the musket with the Maynard patent lock.... In making this report, I have not relied altogether on my own experience, but have taken the opinion of my Sergeants, who have been using [this musket] constantly for nearly two years. [Garavaglia, 116]

The M1847 musketoon was remembered by Maj. Gen. Z. R. Bliss in his memoirs as

> ...a sort of brevet musket. It was nothing but an old musket sawed off to about two-thirds of its original length, and the rammer fastened to the barrel by a swivel to prevent its being lost or dropped when loading on horseback; it used the same cartridge as the musket, kicked like blazes, and had neither range nor accuracy, and was not near as good as the musket, and was only used because it could be more conveniently carried on horseback. [Utley, 25]

His opinion was seconded by Inspector General Col. Joseph K. F. Mansfield who called the musketoon "a worthless arm," noting that the ball had a tendency to roll out when the weapon was suspended from the sling. The Army experimented with a number of carbines for its mounted troops in the latter part of the 1850s to replace the musketoon.

Some 170 men of the newly organized 1st Regiment of Cavalry were issued .54 caliber breech-loading percussion carbines made by Merrill, Latrobe and Thomas. In the 2d Regiment of Cavalry established in the same year, some 200 Perry breech-loading percussion carbines were issued. Other members of these regiments received the M1855 Springfield .58 caliber rifled carbine which was a combination of parts from older cadet muskets equipped with shorter barrels and a new ramrod swivel.

The Army issued a M1855 .58 caliber rifle and refit many of its old smoothbore muskets with rifled bores. The U.S. M1855 Rifle was placed in the hands of the new 9th and 10th Infantry regiments and the Mounted Riflemen. The M1855 Rifled Musket was reissued to the other eight Infantry regiments.

Also having a brief life among the Cavalry was the M1855 Springfield .58 muzzle-loading pistol which had been fitted out with a detachable stock. The pistol was carried in one saddle holster and the stock in the other. This pistol carbine was rejected during its trial in the 1st and 2d Cavalry in 1855.

A more common weapon among the Dragoons and Cavalry was the M1852 Sharp's .52 percussion carbine which began to reach the field in 1858 and 1859 to replace the M1847 musketoon carbine. After a trial in 1850 pitting the Sharps against a number of other breechloaders, a board found:

> [The Sharps] has fired several hundred times without cleaning, during which the movements of its machinery were not obstructed.... The penetration, range and accuracy of fire from the rifle this prepared for it, were superior to that of any other breech loading piece offered to the Board. With Maynard's primer, (which, as well as the cap may be used,) this arm was fired ten times per minute and when discharged over the water, a second charge was fired before the ricochet of the first had ceased. From the observations of the use of this Rifle, the Board are of the opinion that it is superior to any of the other arms loading at the breech, and think it would be well to have further trials made, and to put some of them into the

hands of troops to determine whether they are suitable to the military service. [Garavaglia, 136]

By 1854 there were 35 Sharps in the Department of New Mexico. Colonel Mansfield was a firm believer in the new weapon. He wrote:

> There appears to be at present nothing better for the dragoon than the [Hall] carbine and Sharps rifle. Both load at the breech, and will not of course loose their loads when slung. They can be fired with rapidity and with suitable practice with great certainty. The dragoon can feel safe with one of these pieces dismounted, and alone, with a pocket full of cartridges and caps in the midst of Indians. But with the musketoon he is uneasy; it takes so long to load; he loses his ramrod, or his load out: he gets disconcerted and will probably be whipped if hard pushed. With Sharps rifle the case is different, and the pistol and sword can at once be dispensed with, whenever the horse is to be lightened and speed be necessary in the pursuit of Indians. I would therefore recommend that the musketoon be dispensed with and the rifle and carbine substituted in stead. At present among the dragoons, there are few Sharps rifles, some Harpers Ferry rifles, more carbines and most musketoons, and the ordinary [single-shot] pistols and colts revolvers with the broad sword. [Garavaglia, 137]

Capt. Richard S. Ewell of the 1st Dragoons seconded Mansfield's opinion. "I have had five of Sharps' carbines on hand six months, and am satisfied that they are superior to any firearm yet furnished the dragoons." He found the weapon

> far superior to either rifle, musketoon, or carbine pistol, more particularly as a cavalry arm.... Not one of those in my company has become out of order in the breech-loading arrangement...and the testing has been very severe. ...Mine have the Maynard primer, which is a failure. [Garavaglia, 138, 188]

In 1858 the commander at Fort Buchanan in today's southern Arizona was asking for the Sharps for his garrison, citing its superior characteristics:

> Its range and accuracy are greater than those of the musketoon. It is a stronger arm; the soldier can make it last longer. The swivels and muzzles of the musketoons are constantly getting broken and battered. The range of the Sharps is as great as that of the new carbine pistol—its accuracy of fire greater. The Sharps can be loaded at full speed; the carbine pistol can not without great inconvenience. I am satisfied that the horseman needs no pistol if armed with Sharps' carbine and a light and sharp saber. ...dragoon soldiers have more confidence in it than any other weapon I have ever seen put into their hands; and I have seen them use the musketoon, carbine pistol and Minie rifle. [Garavaglia, 188]

It became a favorite of the troops and the Regular Cavalry would carry this model throughout the Civil War.

The variety of weapons in the service in 1857 and the resultant need for several different kinds of ammunition, caused Lt. Col. Philip St. George Cooke to complain that:

> The Armament of the Cavalry arm has been so varying that there would seem to have been no controlling authority on the subject.... In the first six companies of the Regiment under my immediate command, three have an arm, long discarded—Hall's carbine—and on no other authority than the fancy of a Captain of the regiment. Two have an incompatible supply of Sharps Carbines, and one has the musketoon; and what is worse, these arms have been

necessarily more or less mixed in some companies. [Garavaglia, 188]

While there were Artillery detachments scattered throughout the West, cannon was seldom brought to bear on the fast-moving Indians. The only field piece that had any practicality was the M1840 12-pounder, "Mountain Howitzer," with its "prairie carriage." It could send a 8.9-pound shell over a mile when fully elevated. A rare instance of its use was at the Battle of Apache Pass, Arizona, in 1862, when it startled a band of Apaches under Cochise. The artillery fire was said to have killed as many as 63 of the attacking Indians. One surviving Apache is reported as having said, "We would have done well enough if you had not fired wagons at us." [Utley, 250]

Equipment. An 1851 report of the Army's Quartermaster said the dragoon of that time was weighted down with seventy-eight pounds of equipment. That included his musket, pistol, saber, belt, cartridge box, cap-box, sling swivel, forty rounds of ammunition, holster, curry comb and brush, spurs, spur straps, a horse blanket, a personal blanket, nose bag, picket pin and rope, and a valise for his personal belongings which were not to exceed 6 lbs., 4 oz.

The M1847 Grimsley saddle remained standard until the issue of the McClellan model in 1859. A M1855 Campbell saddle was adopted for trial use in that year by one squadron each of the newly formed regiments of Cavalry. Other saddle models used during the decade of the 1850s were the Hope saddle, a pattern utilizing a Spanish tree and a horn and much favored by the 2d Cavalry in Texas. The Jones saddle was patented in 1854 by 1st Lt. William E. Jones of the Mounted Rifles. The Grimsley, Campbell, Hope and Jones saddles were extensively field tested in the West before submitting them for contention before the 1859 board. The board selected the McClellan saddle. (See section on Civil War equipment.)

Pistol and carbine cartridge boxes underwent a change in 1850 when the *Ordnance Manual* for that year called for a 7.2-inch long, 5-inch deep and 1.6-inch wide black leather box to hold new size ammunition.

The first belt knife ever issued in the Army was the M1849 Ames knife. With a blade 11 3/4-inches long and 1 5/8 inches wide, it had a brass guard and walnut handle. The manufacturer's stamp, "Ames Mfg. Co./ Cabotville/1849," appeared on the blade. The black leather scabbard had a brass tip and throat. Some 1,000 were made and issued to the Regiment of Mounted Riflemen, thereby becoming known as the "Rifleman's Knife." The Army would not issue a knife again until the M1880 Army Hunting Knife.

Around 1854 the Army was experimenting with saddle bags as a replacement for the dragoon's valise.

In 1853, acting on the suggestion of Brevet Lt. Col. W. G. Freeman, the Army adopted a standard procedure for branding its horses. "US" was branded on the right shoulder of the animal, the number of the regiment on the left shoulder, and a letter "C" for condemned on the right haunch after the horse was declared unfit for service.

Pathfinders, Mapmakers, and Soldier-Scientists: The Army's Role in Exploring the Southwest

The hushed awe of discovery, the emotional solitude of being the first to stare out over new vistas, these were the rewards accorded to a handful of young Army officers assigned to explore and map the American West between 1838 and 1863. Most were

members of a small but elite fraternity of soldier-scientists called the Army Topographical Corps and were assigned a mission unique in U.S. Army history. They were to reconnoiter routes through rarefied and intimidating mountain ranges, canyons awesome in their vastness, down rushing rivers and across parched deserts, so that the American people could expand westward to Pacific shores and that the Army outposts placed to protect the pioneers could be supplied overland. At the same time, they would observe and record a plethora of data on the heretofore unknown natural history of some of the most exciting wildlife habitats in the world. The subjects of this exhibit will be limited to those military men who ranged over America's great Southwest, campaigning during the 1846-48 Mexican War, surveying the new border with Mexico, opening wagon train trails, providing tactical maps for the Indian-fighting Army, mapping transcontinental railroad routes, and producing in just 20 years one of the most comprehensive scientific inventories ever made of any part of the earth.

Lieutenant Derby and Steamships on the Colorado

In the fall of 1850, Lt. George H. Derby set sail from San Francisco aboard the 120-ton schooner, *Invincible*, rounded the Baja peninsula, and sailed up the Gulf of California into the mouth of the Colorado River. From there he rowed upstream in a small boat to a rendezvous 80 miles below Fort Yuma with its commander. By so doing, he demonstrated that shallow-draft vessels could use the Colorado River and opened the way for steamboats to be employed in supplying points along the river.

Other Army Explorers

During the last 4 months of 1851, Capt. Lorenzo Sitgreaves headed a 20-man team along the 35th parallel in today's northern Arizona until he reached the Colorado River where he went south to Fort Yuma.

In 1853 Lt. Amiel Weeks Whipple, accompanied by Lt. Joseph Christmas Ives, staked out a railroad survey from Fort Smith, Arkansas, to Los Angeles, California. It followed the 35th parallel, along much of the same route established by Capt. Lorenzo Sitgreaves.

Another railroad route was established in 1854 along the 32d parallel by Lts. John F. Parke and George Stoneman. They traveled east along the Gila River from Fort Yuma as far as the Pima villages, south to Tucson, and then generally along what is today Interstate 10 to El Paso.

To defend settlers against Comanches, Apaches, and Navahoes, the Army had to concentrate most of its soldiers in the Southwest between San Antonio and Yuma. To supply this vast network of military outposts, the Army sought to build roads, map Indian trails, explore the use of rivers for supply, and survey for railroad routes. The four great railroad surveys were conducted between 1853 and 1860. These surveys, along with other data collected by the Topographical Engineers, were consolidated on a single map by Lt. Gouverneur K. Warren. Drawn to a scale of 1:3,000,000, this map was the first accurate depiction of the entire trans-Mississippi West.

Sitgreaves bound report, 1854.

Lieutenant Beale and the Camel Military Corps

The problem of supplying the Army's widespread network of camps was compounded by the waterless expanses of desert. The search for a solution led to a remarkable experiment—the importation in 1855 of camels from Egypt to act as pack animals. It was felt that their

hardiness in hot, dry climates would perfectly suit them to transportation jobs in the Southwest. In the fall of 1857, a survey of a wagon route from Fort Defiance on the New Mexico border to the Colorado River was conducted under the command of Lt. Edward F. Beale. The expedition across Arizona was the first and last employment of the camel corps. While Beale's reports on the animals were enthusiastic, the Civil War intervened. The Camel Corps was disbanded and the beasts sold.

Beale's report. In the fall of 1857, a survey of a wagon route from Fort Defiance on the Arizona-New Mexico border, to the Colorado River was conducted under the command of naval Lt. Edward F. Beale. The expedition across Arizona was the first and last employment of the Camel Corps. While Beale's reports on the animals were enthusiastic, the Civil War intervened. The Camel Corps was disbanded and the beasts sold. This is an original copy of the Beale's report of that 1857 reconnaissance as forwarded to Congress by the Secretary of War, John B. Floyd, in 1858. (1586)

M1859 McClellan saddle. (Repro) George McClellan, who would command the Union Armies in the Civil War, was a captain of dragoons in 1854 when he was sent as an observor to the Crimean War and visited European armies on his way back. Upon his return in 1856 he submitted a number of proposals for new mounted equipment, including a saddle, that were based on Prussian models he had seen. The chief distinguishing feature of the McClellan, adopted in 1859, was its elongated oval opening in the center of the tree which made it lighter and avoided stress and chafing on the horse's backbone. With modifications over the next eighty-four years, it would be the standard cavalry saddle and see service well into World War II.

M1858 Remington revolver.

Bayonet from M1816 musket. (2334)

Rifle, Wickham percussion, 1827. (2025)

Bayonet for M1842 musket. (2335)

Officer's epaulettes, 1847. (0184)

Print, Valley of the Gila, 1851. (2356)

Print, Gila Bend, 1851. (2357)

Print, Zuni, 1851. (2360)

Print, Mohave Villages, 1851. (2361)

Print, San Xavier, 1851. (2362)

First Dragoon, 1858, mannikin. The most notable feature of the uniform worn by the dragoons at Fort Buchanan in southern Arizona in 1858 was the "Jeff Davis" hat, so called because it was said to have been designed by the Secretary of War himself. Despite its dashing look the hat had its detractors, like the old-timer who said, "If the whole earth had been ransacked, it is difficult to tell where a more ungainly piece of furniture could have been found." The number of feathers worn on the hat signified rank. An enlisted man wore one, company grade officers had two, field grade officers and officers of the general staff rated three.

Uniforms. With the demands of fighting the Civil War, the Army had little time to devote to uniform or equipment improvements. Few significant revisions surfaced during this time. The uniform was essentially the M1858 sack coat, M1854 Cavalry shell jacket, or the M1851 frock coat for officers.

Just before the war broke out, a uniform regulation dated 26 February 1861 directed some changes. Heretofore the brim of the M1854 "Jeff Davis" hat was worn by dismounted men (Infantry and Artillery) with the brim looped up on the left side. From now on all soldiers would turn up the right side of their brim. Feathers would be worn on the left. The enlisted forage caps were stripped of their colored cords or welt and now all had a dark blue cord or welt.

In 1861 the regular cavalry was reorganized with the 1st and 2d Dragoons becoming the 1st and 2d Regiments of Cavalry. The Mounted Rifles became the 3d Cavalry, and the old 1st, 2d and the just organized 3d Cavalry regiments were redesignated the 4th, 5th and 6th Cavalry.

With the consolidation of the Dragoons, Mounted Rifles, and Cavalry into one Cavalry corps, the insignia for this arm became crossed sabers with the edges up. Officer's insignia was a gold embroider wire on an oval of black velvet. Enlisted men insignia was stamped from sheet brass and the company letter was placed in the upper angle with the regimental number above it. It was the common practice during the war for men to wear this insignia on top of the forage cap.

The forage cap became the most commonly worn headgear after 1862 since the dress hat with the looped up brim was made of felt and did not hold its shape after wet weather.

Cavalry officers wore the standard ankle boots during the war with the trousers on the outside. However, many officers, regular and volunteer, turned to a more durable non-regulation boot and the styles proliferated.

Following the Civil War an inventory was ordered by the Quartermaster General of stocks of uniforms and equipment on hand. As of 30 June 1865 there were 297,089 cavalry jackets, 361,509 pairs of reinforced trousers, 890,249 forage caps and over 1 million four-button sack coats. The same astronomical numbers applied to other uniform items and horse equipment. This meant that the regular army, reduced back to its peacetime size, would have no shortage of stocks to be exhausted and that they need not expect any major changes in the uniform for years to come.

Weapons. The American Civil War was a period of such innovation and productivity in the manufacture of arms that the war witnessed more different kinds of handguns, rifles, and carbines than had ever or would ever be used again on a battlefield. In the Union Army along there "recognized as official 79 different models of rifles and muskets, 23 different models of carbines and musketoons, and 19 models of pistols and revolvers." [Peterson, *Notes on the Ordnance of the Civil War*]

The M1855, 1861 and 1863 Springfield Rifle-Musket (a shoulder arm that used the components of the musket but substituted a smaller, rifled bore) was the standard arm of the Civil War soldier. It was loaded from the muzzle and used the Minie ball, a paper cartridge that contained both powder and an expanding lead bullet. Harold Petersen, in his monograph on Civil War ordnance, explained the prodedure a soldier

used to aim or fire.

The soldier bit open the cartridge, poured the powder down the barrel, rammed the bullet home on top of it, placed a percussion cap on the nipple to provide the ignition spark, and was ready to fire. A good man could fire four aimed shots a minute. Powder fouling after prolonged shooting, however, could slow this rate considerably.

The weapon had excellent accuracy at distances up to 200 yards, could hit a 6'x6' target at 500 yards and an 8'x8' target about half the time at a distance of 1,000 yards.

The 60-year history of the armory at Harper's Ferry came to an end when it was destroyed to prevent it from falling into the hands of the Confederates. This left only the armory at Springfield, which could not keep up with the wartime demand for weapons. This meant the government would have to rely on civilian contractors and imported arms. A number of foreign rifles found their way on to the Civil War battlefield, the best known being the British Enfield .577 caliber rifle-musket.

During the war the favorite Cavalry weapons were the Spencer .52 caliber carbine, often equipped with a Blakeslee Quickloader that could feed

cartridges into the weapon's magazine in the butt stock; the Sharps single-shot, breech-loading carbine; the Burnside and the Maynard. The M1863 Spencer repeating rifle and carbine was a breechloader that could fire seven rapid shots before reloading. It was a significant improvement in fire power over a single-shot weapon. The M1863 Sharps .52 caliber carbine was an improvement of the model of 1859. It used a Lawrence Primer System and was widely used until the M1873 Springfield carbine replaced it among Cavalry troops.

Many outdated weapons were pulled out of warehouses for issue to the volunteer units. At the Battle of Pichacho in Arizona, Lt. James Barrett of the California Volunteers carried a M1817 .54 caliber rifle that had been converted from a flintlock to percussion. M1822 .69 caliber Remington rifled muskets were being used at Fort Yuma in 1863 along with the more numerous and more modern M1855 .58 caliber Springfield rifle-musket.

In New Mexico and Arizona during the Civil War, troops of both the Union and Confederacy were often armed with their own weapons. Double-barreled shotguns and Navy pistols seemed to be the favorite. The men of the California Column were armed with muzzle-loading rifles and Sharps carbines. Their commander, Col. James Carleton, ordered in 1862 that "each man [of Company B] is provided with a serviceable carbine, with a saber ground sharp, and with a Navy revolver. You will then see that you have 100 rounds of ammunition for each of the ninety Sharps carbines...." [Garavaglia, 193]

Civil War revolvers were the M1858 Remington .44 New Model Army; the M1860 Colt .44 Army New Model; and the M1851 Colt .36 Navy.

The M1861 light

Cavalry saber replaced the M1840 heavy Dragoon saber early in the Civil War. It was issued in both an officers and enlisted model. The officer's had a gilded brass hilt and brass mountings and was sheathed in a blued iron scabbard. The officer's saber knot is the M1851. The enlisted man's scabbard is browned rather than bright. Both were 1-inch wide at the hilt and 34 5/8 inches long.

Equipment. George McClellan, who would command the Union Armies in the Civil War, was a captain of Dragoons in 1854 when he was sent as an observer to the Crimean War and visited European armies on his way back. Upon his return in 1856 he was assigned to the 1st Cavalry and wrote to the Secretary of War with some proposals for new mounted equipment based on some Prussian and other models he had seen. Writing from Philadelphia, he said:

I have shown to several officers passing through this city the Prussian Cavalry equipment; all agree that, with certain quite essential modifications, it would be a better equipment than any we have yet had in our service. The tree is that known as the Hungarian; I would remove all the unnecessary iron with which the Prussians have encumbered it, reduce the height of the cantle, and adopt very nearly "Nolan's" tree. For my own regiment, armed with revolvers, there need be no holster, for the men should follow the Russian system and always carry the pistol on the waist belt. [Steffens, v.2, 53]

Following his letter, Captain McClellan gave further thought to the saddle and, by 1859, had submitted a design to the equipment board formed in that year. It was selected by the board, presided over by Col. Philip St. George Cooke of the 2d Dragoons, Col. Robert E. Lee of the 2d Cavalry, and Lt. Col. Joseph E. Johnston of the 1st Cavalry. With modifications over the next 84 years, it would be the standard cavalry saddle and see service well into World War II. The chief distinguishing feature of the M1859 McClellan saddle was its elongated oval opening in the center of the tree which made it lighter and avoided stress and chafing on the horse's backbone.

Lt. W. H. Jenifer of the 2d Cavalry patented a cavalry saddle in 1860 that had an adjustable steel tree. It was too late to be considered by the 1859 board, but it was used by some officers on both sides in the Civil War.

A number of other recommendations for new horse equipments were made by McClellan and adopted in 1859. A girth of blue wool webbing; a bridle with curb bit, halter and link; a picket pin and a watering bridle all bore 1859 model years.

The cartridge boxes used during the Civil War were those in use since 1855 but in many instances alterations had to be made so that they could hold the new variety of cartridges for the breech-loading weapons.

The Army abandoned its trials with rubber and gutta percha canteens and in 1858 adopted a standard canteen described by the Quartermaster as "tin with cork stopper to hold 3 pints, and to weigh 11 1/2 ounces, covered with gray or sky-blue Kersey."

Troops on the frontier were innovators and many of the recommendations for new equipment came from the men in the field who were most familiar with their needs. Maj. H. H. Sibley of the 2d Dragoons designed a conical tent, patterned after the teepee of the plains Indians that would survive as the standard through World War I. A pole in the center supported the M1858 tent's apex at which was an opening that provided an upward

draft. The edges of the tent were secured with wooden tent pins. A stove was designed for use with the tent which also bore Sibley's name. The cone-shaped, sheet-iron stove could be stacked one inside the other for easy transportation and interlocking stove-pipes directed the smoke out through the hole at the top. These stoves were used up until the Second World War. The tent, pins, pole, and stove cost the Army $41.50 each from which a $5.00 royalty was paid to Sibley. Despite the longevity of this equipment, at least one trooper did not find it to his liking.

...About five o'clock this evening we were ordered to strike our tents and turn them in to the Quartermaster and draw a new pattern got up by Major H. H. Sibley, Second Dragoons (my old Company Officer in New Mexico). These new fangled things are very good for what they are intended—that is to say, for an officer or about eight or ten men to stop in; but when they come to cram eighteen soldiers into them, as they have us tonight, I would prefer, except in stormy weather, to make my bunk out of doors. The fact is, when these new fangled things are got up, they are taken to Washington City and exhibited there, and of course, by the learned gentlemen there, who know nothing of military life. They are at once pronounced a wonderful affair. So they are for a few gentlemen to stop in who can command a company of soldiers to pitch and strike them, put up their stoves, bring and cut their wood, etc., etc.. [Steffen, v.2, 49-50]

In 1863 the Cavalry guidon changed from the red over white swallowtail to a swallowtail bearing the national colors. The stars were arranged in a circular pattern on the blue field and in their center was usually the company designation, although sometimes it appeared on one of the white stripes. It was 2 feet, 3 inches high, and 3 feet, 5 inches wide.

The M1861 Rucker ambulance replaced the two-wheel carts that had been used. It was designed to provide a comfortable ride for the wounded. It became a favorite means of transportation across the West for officers and their families who purchased the wagons directly from the Quartermaster. Designed primarily for a two-horse team, it was also known to have employed a four-horse or six-mule harness. It was replaced in the 1880s by the U.S. Army Dougherty ambulance wagon.

The M1861 six-mule U.S. Army wagon was the standard baggage wagon and saw service across the American West in similar designs even before 1861. In 1863 a single brake lever was added and in 1882 an improved "California" brake was adopted.

When the California Volunteers under Col. James Carleton marched into Arizona and New Mexico in 1862 to reclaim the territory for the Union and assume the duties of protecting the settlers against the Indians, the commander issued marching orders which give an idea of the uniform and equipment.

General Orders No. 3, 11 February 1862.

I. The Infantry companies which may be required to take the field in this District, unless otherwise especially ordered, will always march with knapsacks on. Each soldier will carry *one* great coat; *one* blanket, *one* forage cap, *one* woolen shirt, *one* pair drawers, *one* pair stockings; *one* towel, *two* handkerchiefs; *one* fine and *one* coarse comb; *one* sewing kit; *one* piece of soap; *one* tooth brush.

II. Each soldier will wear his uniform hat without trimmings; *one* blouse; *one* pair trousers; *one* pair stockings, *one* woolen

shirt, *one* pair drawers; and may wear a cravat in lieu of the leather stock.

III. Each soldier whether of cavalry or infantry will have *one* canteen and *one* haversack; *one* tin cup. In his haversack he will carry *one* fork, spoon and plate. He will wear a good sheath knife.

IV. Each company, whether of Cavalry or Infantry, will have only enough mess pans and camp kettles (in nests) for absolute requirements, also a few short handled frying pans; some large tin plates, for the baking of bread; *three* large tin pans in which to mix bread; one or two strong Coffee mills; a six gallon keg for vinegar; a few pounds of black grained pepper; *four* axes; *four* camp hatches; *six* spades; *six* shovels.

V. Officers will not take mess kits, or trunks, or mattresses on the march. It is suggested that each mess of officers of not less than three, be provided with *two* champaign [sic] baskets covered with painted canvas, for their mess furniture. These can be packed upon a mule. Their necessary clothing can be carried in a small hand valise, or pair of saddle bags.

VI. The companies of the *First* Infantry, Cal. Vols. will drill with knapsacks on, and with personal effects packed agreeable to the above orders, from the date of the receipt thereof. [Altshuler, Military Administration in Arizona, 237-8]

Blue and Gray Deploy in the Desert: The Westernmost Battle of the Civil War

The Civil War touched Arizona when a Confederate Army raised in San Antonio and under the command of Brig. Gen. Henry H. Sibley marched as far as Santa Fe and claimed all of New Mexico territory (which then included Arizona) for the Confederacy. A 200-man detachment of Sibley's troops under Capt. Sherrod Hunter arrived in Tucson in 1862 to the cheers of Southern sympathizers.

Their hold on Arizona was short-lived as a force of California Volunteers, 1,800-strong, under Col. (later Brig. Gen.) James H. Carleton, secured Arizona for the Union. The westernmost battle of the Civil War was fought a Picacho Pass on 15 April 1862 when scouting parties from both sides skirmished with a loss of two men to the Confederates and three to the Union. The battle signalled Hunter's retreat from Arizona while Sibley was also withdrawing from New Mexico in the face of a federal offensive led by Col. E. R. S. Canby. The Apaches interpreted the retreat of these forces as a great victory for themselves. It would be the task of Carleton's California Column to deal with the emboldened marauders and strengthen the system of garrison throughout Arizona Territory during the course of the Civil War.

M1860 Army Colt revolver. The M1860 .44 Colt revolver, a six-shot pistol that was much lighter than the earlier Dragoon models, was variously known as the "new model Army pistol," "the new pattern dragoon," or the "new model holster pistol." It was the most popular sidearm of the Civil War.

M1851 Navy Colt revolver. It was called the "Navy" model because it had a naval battle scene engraved upon the cylinder. It was much lighter than the Walker .44 Colt but did not pack the same power.

M1863 Sharps carbine. A common weapon among the dragoons and cavalry was the M1852 Sharp's .52 percussion carbine which began to reach the field in 1858 and 1859 to replace the M1847 musketoon carbine. In 1858 the commander of Fort Buchanan in today's southern Arizona was asking for the Sharps for his garrison, citing its superior characteristics. "...Dragoon soldiers have more confidence in it than any other weapon I

have ever seen put into their hands." It became a favorite of the troops and the regular cavalry, and California volunteers would carry this model throughout the Civil War. The M1863 Sharps was an improvement of the model of 1859 and was widely used until the M1873 Springfield carbine replaced it among cavalry troops.

Helmet plate, CSA. (0676)

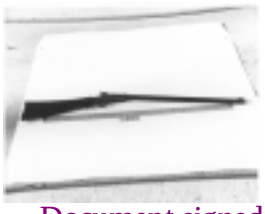
Knapsack, Civil War. (0723)

Bayonet for M1864 rifle. (2336)

Bayonet with scabbard, 1865. (0161)

M1861 Light Cavalry saber and scabbard. (0234)

M1859 Maynard rifle. In 1857 the government bought 400 .35 caliber carbines patented in 1851 by Edward Maynard, a Washington, D.C., dentist. While undergoing tests at West Point, it was described as "a neat little piece of six pounds weight, but of under caliber (.35). [The inventor] tilted up the breech of the barrel, put in a metal cartridge, and lowered the breech to its place again. ...The shooting was only tolerable." [Garavaglia, 190] A later model would raise the caliber to .50. Some 20,000 more of the handy and durable carbine were purchased and issued during the Civil War. (1489)



Document signed by Lincoln, Territory of Arizona. (3585)

1st California Cavalry mannikin. Regulations for 1858 authorized a four-button "sack coat" for field wear and a forage cap known as a "bummer" cap. These would be the standard field uniform throughout the Civil War and well into the Indian Wars when 1872 regulations prescribed a new look. The Civil War Union soldier depicted here is one of the California Volunteers who drove out the rebels in 1862 and then garrisoned Arizona and New Mexico until 1866.

4th Texas Cavalry mannikin. The 1861 Confederate invasion of the Territory of New Mexico, which then included Arizona, was made by mounted volunteers recruited in Texas. Their uniforms and weapons often reflected the improvised nature of their organization. They were armed with their own weapons. Double-barreled shotguns and Navy pistols seemed to be the favorite. This Texan is carrying a model 1858 Remington revolver.

M1879 Laidly Cavalry Forge

This "blacksmith shop on wheels" was named for its developer, Ordnance Colonel T. T. S. Laidly. During the years 1878-1881, 73 of these were made and issued for field service. Only two are known to exist today—one belonging to the Smithsonian and one at the Fort Huachuca Museum. According to 1884 reports from the 4th and 6th Cavalry at Fort Huachuca, the Laidly forge was "too heavy for scouts" and "hard on horses," but good for garrison use.

The Apache

Apache is the most widely known American Indian name throughout the world and is generally associated with fierce and ruthless individuals. The name is derived from the Zuni word "apachu" meaning "enemy." It is an appropriate name, for the Apache were universally feared. They were incomparable and incorrigible raiders, cunning and daring fighters, and no Indian people made a more determined and courageous stand against the inroads of civilization. They favored a hunting and raiding way of life over the more sedentary agricultural lifestyle.

The Apache has a reputation as one of the world's most resourceful guerilla fighters. Historian Robert M. Utley described them: "Cunning, courage, endurance, fortitude and skill in the aboriginal forms of warfare characterized the Apache. What stamped him as the most formidable antagonist the Americans encountered in the march across the continent was an unsurpassed ability to turn to his advantage every feature of a hostile landscape combined with a prudence so well developed as to discourage combat except under the most favorable circumstances. Apaches fought only on their own terms. Stolen horses and mules furnished transportation as well as a mobile commissary." Here are some Apache leaders who were both military tacticians and strategists.

Indomitable Cochise, a Chiricahua leader, who with Mangas Coloradas boldly attacked Brig. Gen. James H. Carleton's California Column in Apache Pass in the Summer of 1862, but were defeated by artillery fire. "We would have done well enough if you had not fired wagons at us," Cochise said afterward.

Tall, proud Mangas Coloradas, who recognized that only by joining forces with other Apache tribes could he hope to withstand the American Army.

Heavyset, cruel Juh who is thought to have trapped the U.S. Army's best Indian tracker in a Whetstone Mountain ambush which cost Lt. Howard Cushing his life on May 5th, 1871.

Peace-seeking Loco, Warm Springs chief, who was goaded by others onto the warpath, where he demonstrated his superior generalship. His war experience taught him there was no future in warring with the white man.

Old but able Nana, a Warm Springs Apache, who set out on a brief but spectacular raid in July of 1881 which covered thousands of miles of enemy territory. Leading no more than 40 warriors, this rheumatic 70-year-old killed from 30 to 50 Americans; fought a dozen skirmishes with pursuing troops and won most of them, and eluded pursuit by thousands of soldiers and several hundred civilians.

Heavy-shouldered Delshay, the most feared of the Tonto Basin warriors, who repeatedly surrendered to the American Army whenever his people were hungry or in need of rest.

Daring Chatto, A Chiricahua who in 1883 led a swift, 6-

day raid during which his 26 men traveled more than 400 miles, riding sometimes 75 or 100 miles a day, and killed 26 whites. It is said that Chatto did not sleep during the entire raid, except for naps he got in the saddle. He stood guard during rest stops. He would later become a sergeant of Indian Scouts working with the U.S. Army in tracking down Geronimo.

Clairvoyant Geronimo, an incorrigible Chiricahua general, who would become world famous thanks to an eastern press that was taken with his defiant and bloodthirsty reputation. He surrendered in 1883 to General Crook who met with him in his Sierra Madre stronghold. He surrendered again in August 1886 to Lieutenant Gatewood, an emissary of Brig. Gen. Nelson A. Miles.

Veteran Chihuahua, one of the ablest Chiricahua war leaders, with 35 men attacked the lightly guarded camp of Capt. Lawton's supply train in Guadalupe Pass on June 8, 1885, killing five troopers, taking five horses and three wagon-loads of supplies, including thousands of rounds of ammunition.

Triumphant Victorio, who was, according to historian Dan Thrapp, America's greatest guerilla fighter, was driven to the warpath

to preserve his dying people and never lost a battle to his relentless American pursuers. His remarkable campaign ended after a year when, helpless and out of ammunition, he was killed by Mexican soldiers in 1880 at Tres Castillos. Thrapp says of him:

No Apache of record, not even the mighty Mangas Coloradas, his predecessor, not the intractable Cochise, his friend and erstwhile colleague, scored such striking successes against the enemy. His greatness lay partly in that, and even more in how he did it, with what handicaps. Victorio managed all of his movements encumbered with women and children and aged ones, and he kept his people intact through all the battles and withdrawals, the flights and foraging for supplies; he never abandoned them, and with them finally he was destroyed. In this alone he was unique.

"Apache Renegades," sculpture, bronze, by Don Cox, 1982. (1578)

Native Apache clothing, fashioned by Apaches living on the White Mountain reservation. (Repro)

"Apache Scout," sculpture, bronze, by Don Cox, 1982. (1574)

Circa 1910 Studebaker wagon. (2200)

Costume Ball

In 1903 a costume ball was held at Fort Huachuca to honor visiting Brig. Gen. Frederick Funston, commanding the Department of Colorado. Represented among the party guests were some historical figures that have an important association with Fort Huachuca.

Tom J. Jeffords:

Huachuca Trader

Thomas J. Jeffords was one of the most famous frontiersmen in the Southwest. He was the only white man trusted by Cochise, leader of the Chiricahua Apaches, and it was through Jeffords that Cochise was persuaded to make a peace treaty with General Otis O. Howard in 1872. In return for his services, Jeffords was made Indian Agent for the Dragoon-Chiricahua Apaches, and later, in 1880, he became Post Trader and Postmaster at Fort Huachuca.

Sam Kee: Cantonese Paymaster

The first American experience of this Chinese immigrant was the labor camps of the Union Pacific Railroad. Having learned cooking skills, he took his savings and opened a restaurant at Fort Huachuca. His business became a popular gathering place at the post and he befriended many soldiers who would later rise to prominence in the U.S. Army. Among them was contract surgeon Leonard Wood. About 1911 congressional wrangling forestalled a vote to appropriate the Army payroll and Fort Huachuca's soldiers were without their pay. Incredibly, Sam Kee turned his savings over to the Post Commander so that the troops would not be without money. This generous act earned for him a revered place in Fort Huachuca's history.

Estevan Ochoa: Mexican Pioneer

Born in 1831 in Chihuahua, Mexico, Ochoa was typical of the many Mexicans who contributed to the opening of the American Southwest. Arriving in Tucson in 1860, he began a freight business which in four years was to have assets of over $100,000 and made him one of Arizona's most influential citizens. At a time before the railroads were built, Ochoa's firm controlled the majority of the shipping in Arizona and was responsible for supplying all of the Army posts in the territory. His rise as a government contractor was not without difficulty as his routes from Kansas City were harrassed by Indians. He demonstrated his loyalty to the United States during the Civil War when Confederate forces occupied Tucson. Refusing to take a loyalty oath to the Confederacy, he forfeited his property, which he said he all owed to the United States, and was forced to ride alone over hundreds of miles to Union-held territory. The dangers he faced traveling alone through hostile Apache country testify to his courage and patriotism.

Tombstone, located 20 miles east, was a popular off-duty destination for many Fort Huachuca soldiers. It was also a favorite "watering hole" for many desperados, stage robbers, and cattle rustlers. Frontier justice was handed out by such men as Wyatt Earp, Jeff Milton, and John Slaughter.

The protection provided by Fort Huachuca in the late 1870s enabled the mineral wealth of the surrounding areas to be exploited. Nearby Tombstone and Bisbee were large cosmopolitan cities supported by gold, silver, and copper mines.

Circa 1880 Wells

Fargo "standard balance" gold scales. Here are a pair of fully jeweled gold standard balance scales, by Howard and Davis, of Boston, Massachusetts, with a marble base, brass columns, bridge and fittings, steel balance arm and chains and copper pans, complete with an original set of Howard and Davis brass gold weights in the bottom half of their original case. The weights read in ounces as well as dollar worth and range from $100 to $3,000. These scales were manufactured in Boston, circa 1850, and shipped around the Horn to be used by Wells Fargo and Company. (Courtesy Mrs. G. Fox) (0729)

"Prospector," Sculpture, bronze, by Don Cox, 1982. (1575)

The M-1905 Gun

This 3-inch field gun was one ofthe models that accompanied American forces into Mexico in 1916 on the Punitive Expedition. The gun was patterned after the famous French 75mm of 1897 and remained in use throughout the 1920s. Common shrapnel, high-explosive shrapnel, or steel shells were used as ammunition. It had a muzzle velocity of 1,700 feet per second and a maximum range of 8,500 yards. There were only 340 of these guns made.

Intelligence on the Border

During the Punitive Expedition, human intelligence (HUMINT) and Signal intelligence (SIGINT) took on new proportions. Although an embryo intelligence staff had been formed in 1903 as part of the Army's General Staff, it was up to General Pershing to organize his own field intelligence netowrk. He started an "Information Department," which employed a network of agents who were reported to have penetrated Vill's camp. It also intercepted and deciphered Mexican communications.

The lessons Pershing learned about the value of military intelligence during the 1916 Punitive Expedition caused him to place great reliance upon this tool during World War I when he commanded the American Expeditionary Force and organized a G2 shop along French and British examples.

From Heliograph Station to Worldwide Satellite Headquarters

Fort Huachuca has long had ties with the U.S. Army Signal Corps. Just as the latest in electronic communications gear is today planned and proven at the post, so too were new ideas tested here in the 1880s.

Since the bonfires which alerted ancient civilizations to the approach of enemy armies, military communications have been an integral part of warfare. In order to issue orders, send warnings, and receive word of enemy movements, the commander and the soldier need a way of communicating quickly over long distances.

The American Army has officially had a Signal Corps since the Civil War when men climbed towers and waved semaphore flags. Brig. Gen. Albert J. Myer, founder, organizer, and first

Chief of the U.S. Army Signal Corps, devised a system of waving flag by day and a torch by night in such a manner that a trained observer could read the movements. His ingenious system was adopted in 1860 and is the basis for the Signal Corps insignia.

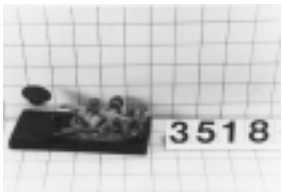
Shortly thereafter the heliograph was used under the bright blue skies of the American Southwest to send mirrored flashes of sunlight from mountain peak to hilltop.

The art of sending messages has come a long way since then. Now voice messages can be electronically scrambled for security purposes, sent into space and relayed by satellite to the opposite side of the world, unscrambled and spoken to the listener, all in a matter of seconds. Some of the devices developed and used by the U.S. Army Signal Corps between this span are shown here.

Circa 1910 portable heliograph. The Signal Corps adopted a modified version of the English heliograph in order to signal over greater distances than was possible with flags. The American model had a mirror and a screen on separate tripods. The mirror directs a constant reflection of the sun on a distant station while the signalman manipulates the

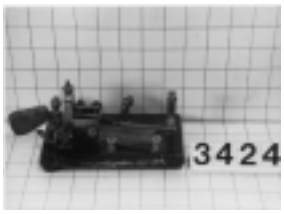
screen to send flashes in a Myer code. The standard field heliograph had a mirror that was 8 inches square and has a range of 30 miles with the naked eye and 60 miles with a telescope. The station heliograph had a mirror that was 8 inches square and has sent messages effectively over 183 miles. These instruments were first tested by the U.S. Army in Arizona during the 1886 Geronimo campaign with exaggerated success. The heliograph was made obsolete by the field telegraph. This service heliograph was donated by Col. Robert D. Smith of Phoenix, Arizona, formerly a surgeon at Fort Huachuca. (2578)

Telegraph instrument. (3518)



Circa 1930 telegraph key. (0837)
Circa 1940 telegraph key. (2657)
Telegraph transmitter. (3419)

Telegraph key. (3424)



Although the telegraph was invented in 1836, it did not have a military application until introduced by General Myer during the Civil War. The "U.S. Military Telegraph" provided communications between major headquarters. A portable field telegraph also known as the "Flying Telegraph" was developed

at this time. It was hand-operated, did not use batteries, and sent signals over several miles of insulated field wire. Another name for the Army's first electrical communication device was the "Beardslee Magneto-Electric Telegraph Set."

In 1898 the Signal Corps used its first radio or wireless telegraphy in a 110-mile link which was part of the Alaskan communications system. Field radios and aircraft radios followed before World War I. Signal Corps research produced more efficient vacuum tube radios, super-heterodyne circuits, and frequency modulated radio. From 1919 to 1939, research was begun on radar for military uses. Maj. Edwin H. Armstrong developed frequency modulated radio which was to revolutionize mobile field communications.

During World War II the types and a variety of radios and radar proliferated to serve special purposes. Push-button FM radios in command cars and tanks, mobile long-range radio, radio relay, multi-channel and single channel teletype and the first worldwide U.S. Army communications network were some of the advances.

The U.S. Army Signal Corps opened the electronic space age by bouncing radio signals off the moon from its Diana I radar on 10 January 1946. Man-made satellites followed with the launch of the Vanguard I in 1953 and a prototype of the first communications satellite (Project SCORE) in 1958. In 1960 Courier I B was launched and began receiving, storing, and transmitting voice and telegraph radio messages at a rate of 67,000 words per minute. Satellite communications made possible Direct Communications Link between Washington and Moscow and a worldwide Defense Communications System (DCS).

The U.S. Army Signal Corps was directed in 1956 to initiate the study and development of tactical Automatic Data Processing Systems for the field army. These systems must reduce administrative loads, accelerate the interchange of records and operational data, and quickly analyze operations. The result was the Mobile Digital Computer (MOBIDIC), a fully transitorized computer in a van.

M1914 Service Buzzer. The M1914 Service Buzzer is strictly a portable instrument and is issued to troops in the field for use in connection with all kinds of lines of communications. It may be used as a telephone or for sending customary Morse or Continental Code signals and for that reason it is specially adapted for field use.

When it becomes impracticable to transmit messages telephonically, due to the line becoming impaired or for other reasons, the usual telegraphic signals can be transmitted and are received in distant telephone receivers in the form of a high-pitched hum, somewhat similar to radio telegraphic signals. These signals have been exchanged between two of these instruments after the line wire had been severed, both ends, however, being slightly grounded.

According to the 1916 Signal Corps manual, "The service buzzer, which is the latest approved instrument of this type, replaces the field buzzer, the Cavalry buzzer, and the Field Artillery telephone and hereafter is the standard issue where the above enumerated obsolete apparatus is involved." (2576)

Circa 1942 Code Converter. (0726)

Circa 1860 Binoculars. (1142)

Circa 1916 signal flags. (1286)

Circa 1905 signal lantern. When the sun went down and the heliograph became inoperable, it would be replaced by the “flash-lantern” which in this example utilized a powerful reflector and a gas flame. Like the heliograph, it used a telegraphic key. The directions for the operation of the Colt Field Signal Lantern state: “This outfit consists of a Signal Lantern, with “Colt Cartridge” generator attached. The lamp is equipped with a special aplanetic lens mirror, 5 inches in diameter and about 3 inches focus. The lamp is packed complete, ready for use in a special wooden case.... The lamp is fitted with a telegraphic key and so arranged that when the key is up the flame is almost extinguished, and by depressing the key the gas is turned on full, making a flash. The lamp can be used with the regular Heliograph tripod, the generator either attached to the lamp or suspended... We, however, recommend that the lamp always be used with the generator attached to the back. ...One charge will burn about one hour with the light turned on full, or for approximately three hours signalling. (1346)

Circa 1860 signal lantern. (1407)

Circa 1902 Signal Corps chevrons, Corporal. (0031)

Circa 1960 field telephone. (2452)

Circa 1956 radio set, test model. This AN/PRC-34 was a developmental 15-ounce radio set for the individual soldier. It is a completely transistorized and provides communication up to 500 yards. It is designed to give squad and platoon leaders instant communication with the individual infantryman. (2567)

Circa 1941 field switchboard. This BD-72 was a regimental field switchboard for use with 12 wire lines. It saw service in World War II. (2568)

Circa 1915 camera, Folmer-Graphlex. Originall called a 5x7 Ordnance Camera, it was adopted by the Signal Corps and classified as Standard Camera PH-6 with lens, the earliest Signal Corps standardized camera. It bears a Signal Corps preliminary inspection stamp.

Circa 1952 field telephone. This was the successor to the EE-8 used during the Korean War. (2573)

Circa 1918 airplane radio set. The SCR-68 was one of our earliest radiotelephones. It used a

three-tube (triode) transceiver. (Courtesy Dr. G. R. Thompson) (2575)

Circa 1920 signal flags. (2579)

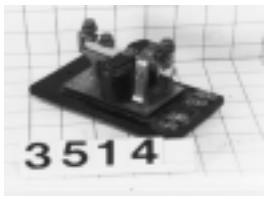
M1892 garrison cap, Signal Corps. (2933)

Radio receiver. (3423)

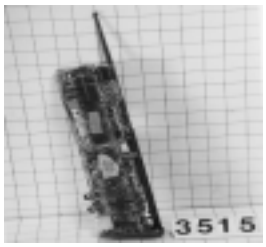
Radio receiver set. (3439)

Circa 1945 carrier hybrid, with case. (3446)

Circa 1926 telegraph receiver, with case. (3514)



Walkie Talkie component. (3515)



Circa 1943 Signal Corps message book. (3519)

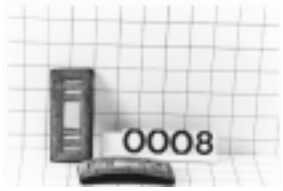
"Buffalo Soldier," sculpture, bronze, by Don Cox, 1982. (1576)

The Well Dressed Soldier

The military profession is one which cherishes tradition, pomp and ceremony. This is reflected in the uniform and uniform accessories which are loaded with symbolism and meaning. They were designed for Roman armies as long ago as the sixth century to provide some protection in warfare, distinguish soldier from civilian and friend from foe, and to give the soldier a sense of belonging and unit pride.

The uniform and its accessories can tell us much about those who wear them. We can see their rank, their arm or branch of service, their special qualifications, the length of time they have been in the service, what campaigns they have participated in, those brave acts for which they have been decorated, the unit to which they now belong, the unit with which they served in combat, and often their names.

Circa 1900 shoulder boards, captain. (0008)



Circa 1896 insignia, 24th Infantry, "G" Troop. (0027)

Circa 1918 chevrons and patches, Signal Corps. (0182)

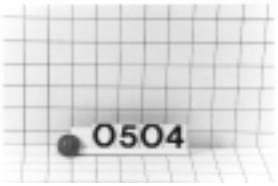
Circa 1899 shoulder knot, First Lieutenant, 4th

Cavalry. (Courtesy Mrs. F. T. Arnold) (0244)

Circa 1900 insignia button, U.S. 369th Infantry. (0501)

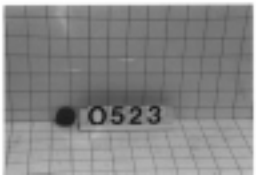
Circa 1900 insignia button, U.S. 10th Cavalry. (0502)

Circa 1900 insignia button, U.S. 25th Infantry. (0504)

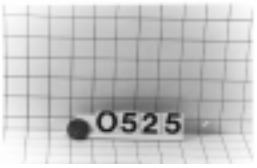


Circa 1905 marksman medal. (0511)

Circa 1890 insignia, 10th Cav, MG Troop. (0523)



Circa 1890 insignia, Cavalry, “C” Troop. (0525)



Circa 1890 insignia, Cavalry, “I” Troop. (0527)

Circa 1890 insignia, Infantry, Co “A”. (0528)

Circa 1879 collar button, Marksman. (0532)

Circa 1905 medal, Sharpshooter. (0533)

Circa 1920 insignia, Musician. (0538)

Circa 1940 insignia, lapel, U.S., 6. (0539)

Circa 1920 insignia, lapel, U.S., 25th Infantry. (0540)

Circa 1900 insignia, lapel, 10th Cav, “I”. (0541)

Circa 1900 eagle plate. (0547)

Circa 1884 General Service stripe, Infantry. (0553)

Circa 1884 Service in War stripe, Artillery. (0554)

Circa 1880 breast cords, Artillery. (0555)

Circa 1880 hat cord. (0570)

Circa 1880 breast cord, Cavalry. (0571)

Circa 1880 insignia, Cavalry. (0573) (Courtesy Tim Calloway)

Circa 1916 leggings. (0574) (Courtesy William Knabe)

Circa 1860 helmet plate, Infantry. (0674) (Courtesy Tim McCoy)

Circa 1877 helmet plate, eagle, officer. (Courtesy Tim McCoy) (0675)

Circa 1860 helmet plate, CSA. (Courtesy Tim McCoy) (0676)

Circa 1918 shoulder patch, Signal Corps. (0678)

Circa 1915 shoulder patches, Signal Corps. (0679)

Circa 1918 shoulder patch, Signal Corps. (0683)

Circa 1880 epaulettes, general's. (0703)

Circa 1960 helmet liner. (0836)

Circa 1941 dog tags. (Courtesy John Healy) (0949)

Insignia, cap, Infantry, hunting horn. (0952)

Circa 1880 helmet plume, Artillery. (0956)

Circa 1942 patch, 92d Infantry Division. (0970)

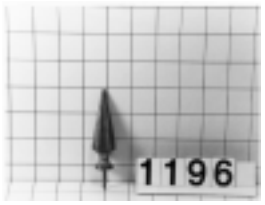
Circa 1920 unit crest, 10th Cavalry. (Courtesy John C. Moreno) (0971)

Circa 1932 dog tags. (Courtesy B. J. Meeks) (1001)

Circa 1932 unit crest, 25th Infantry. (Courtesy B. J. Weeks) (1003)

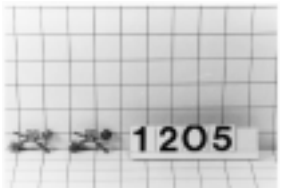
Circa 1880 epaulette. (1056)

Circa 1915 helmet spike. (1196)



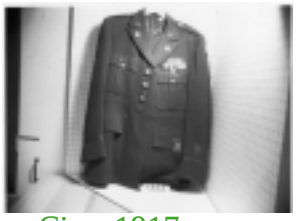
Circa 1919 World War I Victory Medal. (1197)

Circa 1941 insignia, 25th Infantry. (Courtesy Rosa Lee) (1205)



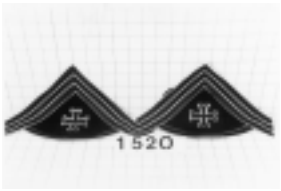
Circa 1880 shoes, officer's. (1288)

Circa 1942 officer's uniform. (Courtesy Charles H. Walp) (1353)



Circa 1917 enlisted uniform. (Courtesy Florence Smith) (1475)

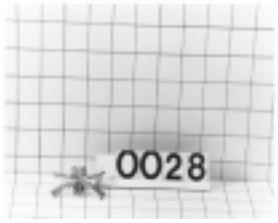
Circa 1900 chevrons, Sergeant of Medical Corps. (Courtesy Harold Deines) (1520)



Circa 1915 insig-

nia, 10th Cavalry, "H" Troop. (Courtesy Benny Dietch) (1570)

Circa 1896 insignia, hat, 25th Inf, "H". (0028)



Circa 1902 breast cords. (0033)

Circa 1940 buckle, brass. (Courtesy Joan Barnett) (1686)

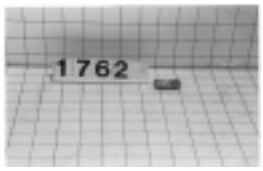
Circa 1955 tie. (Courtesy Edna Coburn) (1722)

Circa 1955 shirt, officer's. (Courtesy Edna Coburn) (1724)

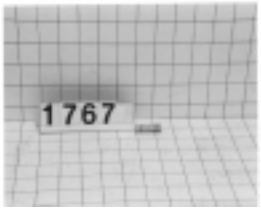
Circa 1941 fourragere. (Courtesy Edna Coburn) (1755)

Circa 1945 hat cord, officer's. (Courtesy Edna Coburn) (1756)

Circa 1941 insignia, Signal Corps (2). (Courtesy Edna Coburn) (1762)



Circa 1945 ribbon, American Defense Service. (Courtesy Edna Coburn) (1767)



Circa 1943 ribbon, American Campaign. (Courtesy Edna Coburn) (1768)

Circa 1945 ribbon, Victory, World War II. (Courtesy Edna Coburn) (1769)

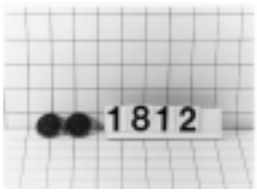
Circa 1945 ribbon, Asiatic Pacific Campaign. (Courtesy Edna Coburn) (1770)

Circa 1946 ribbon, Philippine Independence. (Courtesy Edna Coburn) (1771)

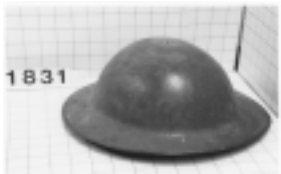
Circa 1945 service stripes (6). (Courtesy Edna Coburn) (1772)

Circa 1950 whistle. (Courtesy Edna Coburn) (1780)

Circa 1941 buttons, bronze, enlisted. (1812)



Circa 1918 helmet. (Courtesy Ralph Doherty) (1831)



Circa 1920 cap,

saucer, officer's. (Courtesy Selwyn D. Smith, Jr.) (1848)

Circa 1920 shoulder knots, Cavalry. (Courtesy Selwyn D. Smith, Jr.) (1850)

Circa 1900 shoulder straps, Colonel, Medical Corps. (Courtesy Mrs. Lee Brown) (1856)

Circa 1941 chevrons, Sergeant First Class. (1877)

Circa 1941 chevrons, Staff Sergeant. (1878)

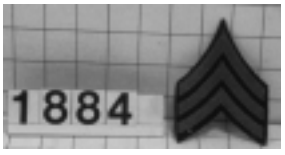
Circa 1941 chevrons, T/6. (1879)

Circa 1941 chevrons, T/5. (1880)

Circa 1941 chevrons, T/5. (1881)

Circa 1945, chevrons, Sergeant. (1883)

Circa 1941, chevrons, Sergeant. (1884)

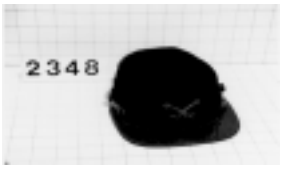


Circa 1941 helmet, with liner. (1976)

Circa 1941 shoulder patch, 93d Infantry Division. (2097)

Circa 1941 boots. (2325)

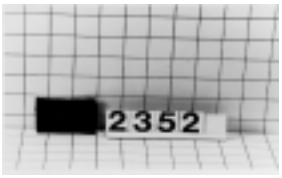
Circa 1885 kepi, Cavalry, officer's. (2348)



Circa 1851 hat insignia, Infantry. (2350)

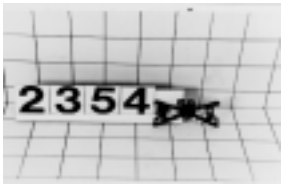
Circa 1839 hat insignia, Brig. Gen. (2351)

Circa 1800 hat insignia, Artillery Ordnance Officer. (2352)

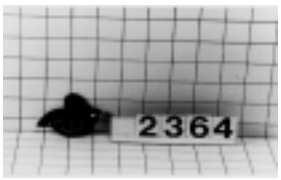


Circa 1800 hat insignia, Inspector General Officer. (2353)

Circa 1918 insignia, Cavalry, Maj. Gen.. (2354)

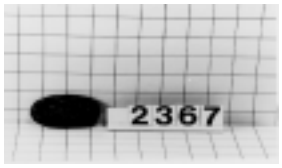


Circa 1840 insignia, Infantry. (2364)



Circa 1833 insignia, Infantry Officer. (2365)

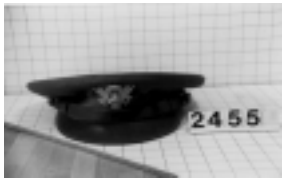
Circa 1872 hat insignia, Quartermaster. (2367)



Circa 1898 pith helmet. (2405)

Circa 1917 cavalry boots. (Courtesy Mrs. Fitzhugh Lee) (2442)

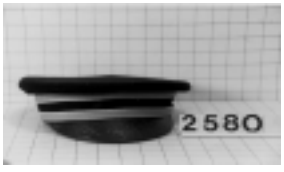
Circa 1941 cap, service, officer's. (Courtesy Mrs. Fitzhugh Lee) (2455)



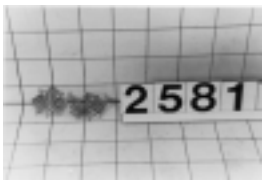
Circa 1909 blouse, field, Signal Corps Corporal. (2465)

Circa 1872 coat, cavalry, enlisted. (2470)

Circa 1907 cap, saucer, dress. (2580)



Circa 1903 insignia, Signal Corps. (2581)

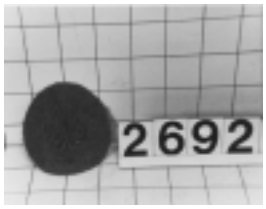


Circa 1903 coat, dress, Signal Corps, enlisted. (2582)

Circa 1941 cap, field, fatigue. (Courtesy W. C. Hatfield) (2669)

Circa 1918 chevrons, Sergeant, Signal Corps. (2691)

Circa 1918 shoulder patch, Signal Corps. (2692)



Circa 1885 coat, officer's. (Courtesy W. C. Hatfield) (2754)

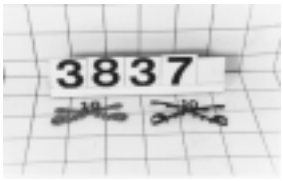
Circa 1941 cap, saucer, officer's. (2810) (Courtesy W. C. Hatfield)

Circa 1930 pith helmet. (Courtesy W. C. Hatfield) (2813)

Circa 1942 cap, field, fur, winter. (2824)

Circa 1960 cap, garrison, summer, WAC. (2827)

Circa 1914 insignia, collar, 10th Cavalry. (Courtesy Alice Grierson) (3837)



"Pancho Villa," sculpture, bronze, by Don Cox, 1982. (1577)

A New Era for Fort Huachuca

On February 1, 1954, Fort Huachuca was reactivated after a seven-month shutdown following the end ofthe Korean War. It was the beginning of a new era for this one-time cavalry outpost, one which saw Huachuca emerge as a leader in the development of electronic warfare. The Army's Electronic Proving Ground opened in 1954, followed by the Army Security Test and Evaluation Center in 1960, the Combat Surveillance and Target Acquisition Training Command in 1964, and the Electronic Warfare School in 1966. Huachuca's ranges and airspace became crisscrossed with pilotless surveillance drones, pioneering ground surveillance radars, and man-packed electronic jammers. Given urgency by the war in Vietnam and validated by the October 1973 Arab-Israeli War, Electronic Warfare became an indispensable tool for the battlefield commander, and one which would become the responsibility of the intelligence arm during the 1970s and beyond.

A Fort Huachuca Patrol

While erecting permanent structures at Camp Huachuca needed for the well being of the garrison, the critical job of the cavalry there continued to be the protection of the citizens from Apache depredations. To this end it was necessary to mount constant patrols at every rumor of an Apache presence in an often futile attempt to come to grips with their elusive foe.

Campfire Tableau

The men around this campfire are equipped for the field as they would have been shortly after the establishment of Camp Huachuca in 1877. Some wear the Model 1874 gray flannel shirt, while the NCOs wear the M1874 five-button fatigue blouse with the collar and cuffs trimmed in gold cord to signify the Cavalry branch. The gray flannel shirt was supposed to be worn only under the dark blue blouse, but the regulations were deemed wholly impracticable in the desert reaches of New Mexico and Arizona. The trousers are the sky-blue pattern of 1872 made of kersey and having a 3 1/2-inch waistband. (All items in this setting are reproduction.)

They have M1872 boots for Cavalry and Light Artillery. It was wider and higher at the top to better allow the trousers to be tucked into the boot. It replaced the M1859 boot and was worn until 1885. The M1881 Mills cartridge belt has the M1879 holster attached. The NCOs have on the M1872-style chevrons sewn on both sleeves below the elbow and trouser stripes (1-inch for sergeants, 1/2-inch for corporals, and 1 1/4-inch for Ordnance Sergeants and Hospital Stewards. The hat is the M1876 campaign hat which replaced the wide-brimmed model of 1872.

A new M1876 bed blanket was issued in that year that substituted an indigio-blue edge for the black dye formerly used for the stripe and "US" lettering. The black dye was found to make the wool disintegrate more quickly.

The troopers are armed with the standard sidearm for cavalrymen in the West, the M1873 Army Colt, single-action .45 revolver which had a 7 1/2-inch barrel and used a metallic cartridge. There were 37,000 issued between 1873 and 1891. It wasn't until 1891 that a double action Colt .38 caliber was issued in large numbers to replace the 1873 model. Other pistols used by the frontier soldier, in much smaller numbers and often only experimentally, were the M1869 Smith and Wesson Army .44 single-action revolver with 8-inch barrel; the M1871 Remington single-shot; the M1872 Army Colt .44 caliber, rimfire, metallic cartridge, with 7 1/2-inch barrel; the M1875 Remington single-action Army revolver; and the M1875 Smith and Wesson "Schofield" Army .44 revolver with 7-inch barrel.

From their M1874 carbine slings would be clipped the M1873 U.S. carbine, .45-70, a new breech loader recommended by a board of officers who had tested over 100 arms.

In 1874 a board of officers, presided over by Col. Innis N. Palmer, was convened at Fort Leavenworth, Kansas, "to consider and report the changes, if any, that should be made in the horse equipments, cavalry equipments and accoutrements...for the cavalry service." In an effort to ascertain the opinions of the officers who would have first-hand experience in these matters, the board circulated a questionnaire to company commanders and regimental officers in the ten regiments of

Regular Cavalry, as well as entertaining the suggestions from other interested officers and civilians. The proceedings of the board were published in the same year as Ordnance Memoranda No. 18. The result was a whole new series of cavalry equipment for the field, all bearing the model year of 1874. Among the new models were: a McClellan saddle, curb bridle and halter, saddlebags, girth, Lyon picket pin, halter chain, sideline, a felt saddle cloth, stirrup with socket for guidon and standard, horse brush, curry comb, Dyer's pattern carbine cartridge pouch, Shoemaker curb bit, curb strap, pistol cartridge pouch, Hazen sliding cartridge loops, a saber belt, a spur, and a holster with swivel belt attachment. As was the Army's policy, these items would not be issued until stocks of previous models had been used, resulting in two to four years before they actually reached the field.

M1879 Laidley Cavalry Forge was named for its developer, Ordnance Col. T. T. S. Laidley. It was a "blacksmith shop on wheels." During the years 1878-81, 73 of these were made and issued for field service. Only two are known to exist today—one belonging to the Smithsonian and one at the Fort Huachuca Museum. According to 1884 reports from the 4th and 6th Cavalry at Fort Huachuca, the Laidley forge was "too heavy for scouts" and "hard on horses" but good for garrison use. (1134)

Buckboard spring wagon used by the Paymaster at Fort Huachuca. (2913)

What Did They Spend?

During the Indian Campaigns, a private received $13 a month, a corporal $15, a sergeant $17, and a first sergeant $22. An enlisted man at Fort Huachuca could also earn an additional 50 cents a day if detailed as a mechanic, schoolteacher, or artisan.

Between 1877 and 1886, a Fort Huachuca soldier could expect to pay $10 for the stage from Tombstone to Tucson, get a meal for 50 cents and a bed for 75 cents, purchase a quart of beer for 50 cents, buy a new wooden tobacco pipe for 25 cents, or lay out $1 for a pocket edition of *Webster's Dictionary*.

What Did They Play?

Running races, throwing weights, pitching horse shoes, and baseball were the more popular "official" games played by the troops. Foot races were usually in the form of short sprints, such as the 100-yard dash. Baseball was next to foot racing in favor, with many units having company ball teams on which the officers participated with their men.

Card playing was probably the most common diversion among western Regulars. After payday, the preferred games were three-card monte, seven up, high-low jack, and black jack, with poker most often the game of choice. When soldiers had no money for gambling, they chose euchre, whist, casino, cribbage, and pinochole. Though not as common as card playing, dice games, usually "craps," were also played to break the monotony.

What Did They

Eat?

John Bigelow, a 10th Cavalry lieutenant in Arizona during the gruelling Apache campaigns, thought the food was sufficient on the trail.

An American soldier is allowed for his daily food: 3/4 lb. of bacon or 1 1/4 lb. of fresh beans; 1 1/8 lb. of flour or 1 lb. of hard bread; 0.15 lb. of beans or 0.10 lb. of rice, 0.10 lb. of coffee, 0.15 lb. of sugar, and a certain quantity of salt, pepper vinegar, and yeast powder. He receives no liquor. With occasional exceptions, especially as regards bread and bacon—of which he has not always his full allowance—a soldier gets all he asks for of the nourishment provided for him. — Lieut. John Bigelow, 10th Cavalry

What Did They Read?

Lieutenant John Bigelow, who was from a literary New England family and a 10th Cavalry officer who wrote about his visit to Fort Huachuca in 1885, described the post commander's (Bvt. Brig. Gen. George A. Forsyth) personal library. "The afternoon I devoted to looking over the military works in the general's library, most of them French and German, which he procured from abroad. Such an opportunity for professional reading does not present itself often on the frontier."

At Fort Huachuca during the Apache campaigns, a library had existed since 1879 when Captain Whitside ordered a nucleus of books and magazines from San Francisco. Books like *Byron's Works*, and periodicals like *Harper's Weekly* were common. Revenue for the library was obtained from post funds eked from economies on the soldier's bread ration and a 10-cent-per-man contribution from the Post Trader.

Circa 1880 spectacles. (Courtesy Alice Grierson) (1057)

In Storage

"The Founding of Camp Huachuca," mural by Lew E. Davis. This 8'x12' mural was one of four Davis, an Arizona native, did during his World War II Army service at Fort Huachuca. They depict the early history of the post and the Army and were originally painted to hang in the Lakeside and Mountain View Officers Clubs. The other three, "Geronimo's Surrender," "The Indian Scouts," and "Negroes in the American Military" have disappeared. When the post was closed in 1947, the "Founding of Camp Huachuca" mural was shipped to Phoenix where it hung in the State Capitol. When the fort was reopened in 1954, it was returned and hung in the Main Library. In 1978 it was turned over to the museum and it now hangs next door in Rodney Hall, the garrison headquarters. The mural, painted in oil on three sections of masonite, has been valued at $45,000. (1200)

Campaign ribbons, earned by Sergeant Emil Pauly who served at Fort Huachuca in Troop I, 4th Cavalry, in the 1880's. He participated in the Geronimo campaign in 1886, reenlisted in 1898 in the 8th Infantry, and led a charge up San Juan Hill in Cuba after his Commanding Officer was wounded. He also served in the Philippines. He retired in 1924 and lived in Douglas, Arizona, until his death at 82 in 1945. (3822)

Circa 1910 Fort Huachuca PX tokens. Tokens were popular early in the 20th century since they stimulated sales when cash was scarce. They were redeemable in goods and insured the soldier would do his shopping at the PX. (1008)

M1873 Springfield rifle bayonet. (2337)

1963 "Gold Book," an Army study which resulted in the formation of the U. S. Army Strategic Communications Command. (0995)

Circa 1942 memorabilia from the 368th Infantry. (Courtesy Robert W. Vincent) (1199)

Circa 1944 "Bushmaster" shoulder patches.

Woodblock print by Frederic Remington, ca. 1886. (1123)

Woodblock print by Frederic Remington, ca. 1886. (1124)

Woodblock print by Frederic Remington, ca. 1886. (1125)

Woodblock print by Frederic Remington, ca. 1886. (1126)

Woodblock print by Frederic Remington, ca. 1882. (1127)

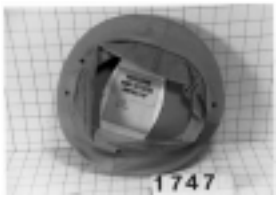
Woodblock print by Frederic Remington, ca. 1888. (1128)

Circa 0000 canteen cover. (Courtesy Ralph B. Doherty) (1906)

Circa 0000 officer's garrison cap. (Courtesy Edna Coburn) (1743)

Circa 0000 officer's garrison cap. (Courtesy Edna Coburn) (1746)

Circa 0000 service cap cover. (Courtesy Edna Coburn) (1747)



Circa 0000 guidon, 193d Signal Battalion. (2517)

Circa 0000 Signal Corps guidon, 93d, "A". (2516)

Circa 0000 boots. (1832)

Circa 0000 musette bag. (Courtesy W. D. Hatfield) (2428)

Circa 0000 flag, U.S., 36 stars. (1598)

Circa 0000 aircraft camera. (3672)

Circa 0000 binoculars. (Courtesy Mrs. Joseph D. Patch) (1298)

Circa 0000 summer worsted shirt. (Courtesy Eric R. Osborne)

Circa 0000 uniforms, "pinks" and greens. (Courtesy Mrs. James G. Daniel) (1143)

Circa 0000 officer's overcoat. (Courtesy Mrs. James G. Daniel) (1149)

Circa 0000 Sam Browne belt. (Courtesy Maj. Gen. Benjamin H. Pochyla) (0934)

Circa 0000 summer worsted shirt. (Courtesy Eric R. Osborne)

Circa 0000 cartridge belt. (Courtesy J. Porter) (3783)

Circa 0000 first aid kit. (1974)

Circa 1847 epaulettes. (0184)

Circa 1860 surgeon's pocket kit. (1139)

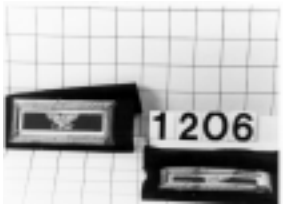
Circa 1861 knapsack. (Courtesy Arthur Walters) (0723)

Circa 1870 breast cord, Cavalry. (2318)

Circa 1872 insignia, kepi, Infantry. (2349)

Circa 1880 leg irons. (1610)

Circa 1880 shoulder boards, Colonel, Medical Corps. (1206)



Circa 1880 cape, dress, officer, Medical Corps. (Courtesy W. Z. Brown) (0199)

Circa 1880 suspenders. (1063)

Circa 1881 Mills ammunition belt. (1289)

Circa 1885 spurs. (1064)

Circa 1885 saber hanger. (0984)

Circa 1890 9th Cavalry guidon. (3838)

Circa 1890 uniform trousers. (Courtesy R. Mullens) (2869)

Circa 1900 holster, Colt revolver. (1076)

Circa 1900 guidon, Troop D, 5th Cavalry. (0901)

Circa 1902 enlisted Cavalry dress coat. (1825)

Circa 1902 enlisted Cavalry trousers. (1826)

Circa 1902 cartridge belt. (2207)

Circa 1905 Spanish American War medal. (Courtesy Robert E. Sova) (1983)

Circa 1906 enlisted Coast Artillery coat. (Courtesy Harel T. Hawkins) (2735)

Circa 1910 dog tags. (2116)

Circa 1910 Signal Corps collar insignia. (0032)

Circa 1910 saddle bags. (Courtesy George W. Parker) (1116)

Circa 1910 token, Ft. Huachuca PX. (1008)

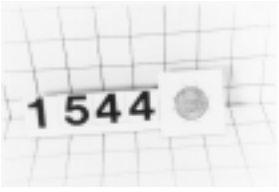
Circa 1913 dog tag. (1986)

Circa 1913 helmet button. (1987)

Circa 1913 Mexican General insignia. (1988)

Circa 1913 Cavalry spurs. (Courtesy J. DeChristopher) (1359)

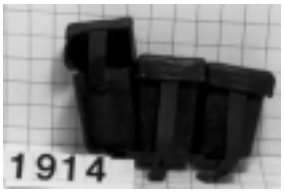
Circa 1915 token, Ft. Huachuca PX. (Courtesy Charles Benbow) (1544)



Circa 1916 enlisted summer trousers. (Courtesy Deryl/David Rising) (1083)

Circa 1916 helmet. (Courtesy Deryl/David Rising) (1081)

Circa 1916 pouch, ammunition. (Courtesy Ralph B. Doherty) (1914)



Circa 1916 enlisted overcoat. (Courtesy Deryl/David Rising) (1087)

Circa 1916 leggings. (Courtesy Deryl/David Rising) (1086)

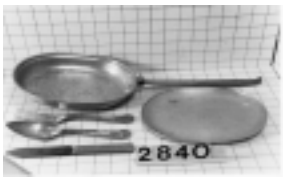
Circa 1916 Cavalry uniform. (Courtesy William Knabe) (0577)

Circa 1916 wool shirt. (Courtesy Deryl/David Rising) (1084)

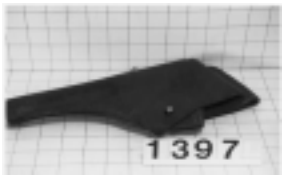
Circa 1916 Cavalry uniform. (Courtesy William Knabe) (0576)

Circa 1916 dog tag. (Courtesy Mrs. Wallace J. Flynn)

Circa 1917 mess kit. (Courtesy W. C. Hatfield) (2840)



Circa 1917 holster belt. (1397)



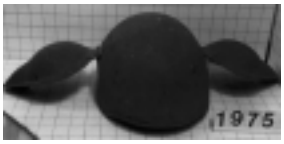
Circa 1917 Mexican Service Medal. (1984)

Circa 1917 Marksman Medal. (1985)

Circa 1918 leather leggings. (Courtesy H. J. Birren) (3364)

Circa 1918 belt. (Courtesy Ralph B. Doherty) (1911)

Circa 1918 helmet, radioman. (1975)



Circa 1918 World War I Victory Medal. (Courtesy Mrs. Wallace J. Flynn) (1939)

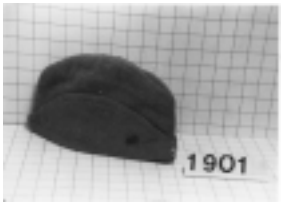
Circa 1918 World War I Victory Medal. (Courtesy Mrs. Wallace J. Flynn) (1937)

Circa 1918 enlisted garrison cap. (Courtesy Ralph B. Doherty) (1910)

Circa 1918 Cavalry boots. (Courtesy Mrs. Fitzhugh Lee) (2443)

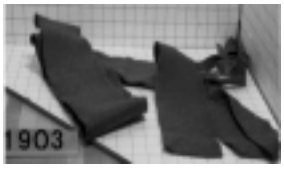
Circa 1918 Cavalry officer's uniform. (Courtesy D. Watt) (2778)

Circa 1918 enlisted garrison cap. (Courtesy Ralph B. Doherty) (1901)



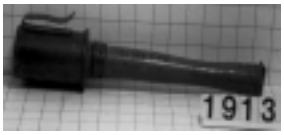
Circa 1918 uniform jacket. (Courtesy Ralph B. Doherty) (1898)

Circa 1918 leggings. (Courtesy Ralph B. Doherty) (1903, 1904, 1908)



Circa 1918 McClellan saddle. (1945)

Circa 1918 grenade. (Courtesy Ralph B. Doherty) (1913)

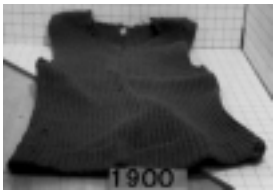


Circa 1918 insignia, electrician. (2363)

Circa 1918 flag kit. (Courtesy Maj. Gen. Hugh F. Foster, Jr.) (3077)

Circa 1918 signal semaphore flags. (Courtesy Ralph B. Doherty) (1907)

Circa 1918 sleeveless sweater. (Courtesy Ralph B. Doherty) (1900)



Circa 1918 enlisted overcoat. (Courtesy Ralph B. Doherty) (1714)

Circa 1918 bayonet, with scabbard. (Courtesy Ralph Doherty) (1912)

Circa 1918 cardigan sweater. (Courtesy Ralph B. Doherty) (1899)

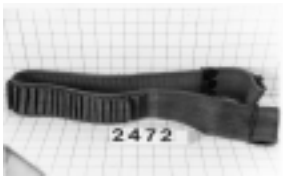
Circa 1918 insignia, machine gun, officer. (2355)

Circa 1918 wool gloves. (Courtesy Ralph B. Doherty) (1902)

Circa 1920 signal semaphore flags. (Courtesy Robert S. Van Diver) (1251)

Circa 1920 insignia, 10th Cavalry. (Courtesy Mrs. James G. Daniel) (1163)

Circa 1920 ammunition belt. (Courtesy Mrs. Fitzhugh Lee) (2472)



Circa 1920 cavalry officer's cape. (Courtesy Selwyn D. Smith, Jr.) (1847)

Circa 1920 leather leggings. (1573)

Circa 1920 belt with saber carrier. (Courtesy Selwyn D. Smith, Jr.) (1849)

Circa 1920 Huachuca Mining Company die stamp. (1990)

Circa 1921 engraved silver tray. (Courtesy Andrew B. Carnahan) (0219)

Circa 1924 magazine pouch. (1828)

Circa 1924 magazine pouch. (1827)

Circa 1924 pouch and magazines. (1829)

Circa 1925 saddle bags, Cavalry. (Courtesy Thomas H. Pierce) (3410)

Circa 1925 Cavalry boots, with trees. (Courtesy Mrs. Fitzhugh Lee) (2654)

Circa 1929 dog tags. (1004)

Circa 1930 Cavalry officer's spurs. (0610)

Circa 1930 Cavalry boots with trees. (Courtesy R. F. Kraeger) (3362)

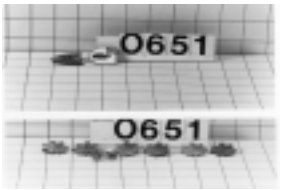
Circa 1930 telegraph key, knee. (3513)

Circa 1930 holster. (Courtesy Ruth Tuthill Green) (3047)

Circa 1930 token, Ft. Huachuca Canteen. (Courtesy Fred Hart) (1006)

Circa 1930 token, Ft. Huachuca Dairy. (0045)

Circa 1931 officer's coat. (Courtesy Mrs. Clarence A. McIntyre) (0651)



Circa 1932 officer's garrison cap.

(Courtesy Edna Coburn) (1738)

Circa 1932 collar insignia, Co "I", Inf. (Courtesy B. J. Meeks) (1000)

Circa 1932 officer's garrison cap. (Courtesy Edna Coburn) (1739)

Circa 1932 collar insignia, "US 25". (Courtesy B. J. Meeks) (1002)

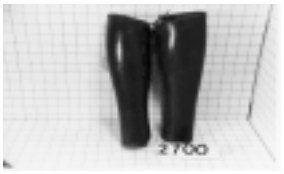
Circa 1935 leather leggings. (2682)

Circa 1935 cornerstone of Masonic Lodge at Fort Huachuca. ()

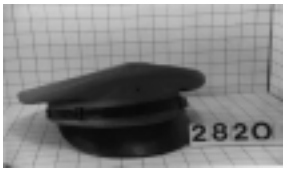
Circa 1935 officer's cavalry boots. (Courtesy D. B. Gibson) (3363)

Circa 1935 canteen, with cover. (3026)

Circa 1935 leather leggings. (Courtesy H. J. Birren) (2700)



Circa 1939 officer's cap. (Courtesy W. C. Hatfield) (2820)



Circa 1939 web belt. (Courtesy Joan E. Barnett) (1685)

Circa 1940 life preserver from USS Arizona. (2459)

Circa 1940 summer Cavalry breeches. (Courtesy H. J. Birren) (2698)

Circa 1940 officer's garrison cap. (Courtesy Edna Coburn) (1740)

Circa 1940 saber holder and strap. (Courtesy Mrs. Clarence A. McIntyre) (0656)

Circa 1940 Cavalry boots. (1915)

Circa 1940 officer's white uniform. (2706)

Circa 1940 Cavalry insignia. (Courtesy Mrs. James G. Daniel) (1169)

Circa 1940 officer's shirt. (0472)

Circa 1940 garrison belt. (1830)

Circa 1940 Staff Sergeant chevrons. (Courtesy Edna Coburn) (1761)

Circa 1940 Cavalry Officer's boots. (Courtesy Mrs. James G. Daniel) (1159)

Circa 1940 officer's shirt. (Courtesy Mrs. James G. Daniel) (1155)

Circa 1940 commander's desk. (2856)

Circa 1940 summer Cavalry shirt. (Courtesy H. J. Birren) (2697)

Circa 1940 dispatch case. (Courtesy T. P. Thyons) (3797)

Circa 1940 WAC boots. (0492)

Circa 1941 chevrons, Sergeant First Class. (1876)

Circa 1941 shoulder patch, 158th "Bushmaster" Regiment. (1872)

Circa 1941 canteen cover. (1834)

Circa 1941 garrison caps. (3475)

Circa 1941 officer's garrison cap. (Courtesy Edna Coburn)

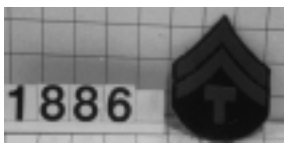
Circa 1941 tank-top undershirts. (1839)

Circa 1941 WAC garrison cap. (Courtesy W. C. Hatfield) (2832)

Circa 1941 boots. (1989)

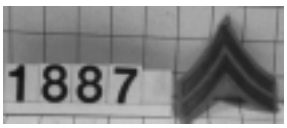
Circa 1941 dog tags. (0848)

Circa 1941 chevrons, Corporal, Tech. (1886)



Circa 1941 officer's wool shirt. (1806)

Circa 1941 chevrons, Corporal. (1887)



Circa 1941 women's fatigue pants. (1803)

Circa 1941 field jacket. (1801)

Circa 1941 women's fatigue trousers. (1802)

Circa 1941 rubberized raincoat. (1800)

Circa 1941 women's wool shirt. (1805)

Circa 1941 insignia, WAC. (1891)

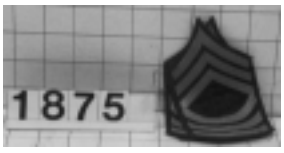
Circa 1941 service stripe. (1890)

Circa 1941 chevrons, Corporal. (1888)

Circa 1941 camp kit. (Courtesy Wilson R. Vincent) (1824)

Circa 1941 chevrons, Private First Class. (1889)

Circa 1941 chevrons, Master Sergeant. (1875)

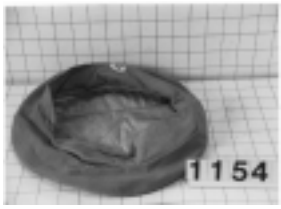


Circa 1941 trousers, "pinks". (Courtesy Joan E. Barnett) (1694)

Circa 1941 collar insignia, "US". (Courtesy Joan E. Barnett) (1688)

Circa 1941 WAC garrison cap. (Courtesy Joan E. Barnett) (1691)

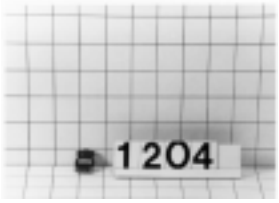
Circa 1941 garrison caps. (Courtesy Mrs. James G. Daniel) (1154)



Circa 1941 chevrons, First Sergeant. (1873)

Circa 1941 snake bite kit. (Courtesy Arthur V. Corley) (1119)

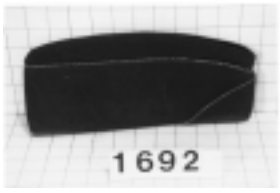
Circa 1941 unit crest, 25th Infantry. (Courtesy Rosa Lee) (1204)



Circa 1941 officer's raincoat. (Courtesy Mrs. James G. Daniel) (1150)

Circa 1941 chevrons, Tech Sergeant. (1882)

Circa 1941 officer's garrison cap. (Courtesy Joan E. Barnett) (1692)



Circa 1941 sewing kit. (Courtesy Edna Coburn) (1789)

Circa 1941 "Eisenhower" jacket. (1811)

Circa 1941 First Lieutenant insignia. (Courtesy Joan E. Barnett) (1689)

Circa 1941 officer's summer uniform. (Courtesy Edna Coburn) (1716)

Circa 1941 WAC handbag. (1408)

Circa 1941 officer's toilet kit. (Courtesy Mrs. Harold R. Henry) (1412)

Circa 1941 WAC raincoat. (Courtesy A. M. Zizon) (3372)

Circa 1941 buttons, eagle, WAC. (1892)

Circa 1941 chevrons, Master Sergeant. (1874)

Circa 1941 kit, Signal, panel. (Courtesy John W. Hammond) (1553)

Circa 1942 U.S. Marine Corps shoes. (1366)

Circa 1942 Red Cross poster. (1588, 1589, 1590, 1591, 1592)

Circa 1942 pouch, first aid. (1835)

Circa 1942 officer's overcoat. (Courtesy S. P. Swartz) (2739)

Circa 1942 officer's overcoat. (Courtesy S. P. Swartz) (3667)

Circa 1942 garrison cap. (2826, 2828, 2829, 2831, 2833)

Circa 1942 officer's garrison cap. (Courtesy Edna Coburn) (1741)

Circa 1942 wool leggings. (Courtesy Frank Little) (1035)

Circa 1942 uniform "pinks" and greens. (Courtesy Mrs. James G. Daniel) (1145)

Circa 1942 unit crest, 25th Infantry. (Courtesy Frank Little) (1033)

Circa 1943 officer's trousers. (Courtesy R. Wilson Vincent) (1820)

Circa 1943 officer's coat. (Courtesy R. Wilson Vincent) (1819)

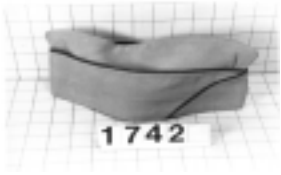
Circa 1943 khaki shirt. (Courtesy Mrs. Carl Bruck) (1024)

Circa 1943 shoes. (Courtesy R. Wilson Vincent) (1822)

Circa 1943 service cap. (Courtesy Mrs. Carl Bruck) (1027)

Circa 1943 field cap. (2823)

Circa 1943 officer's garrison cap. (Courtesy Edna Coburn) (1742)



Circa 1943 hat cover. (Courtesy Mrs. Carl Bruck) (1028)

Circa 1943 uniform shirt. (Courtesy Joan E. Barnett) (1695)

Circa 1943 musette bag. (Courtesy Edna Coburn) (1787)

Circa 1943 Office of War Information poster. (1593, 1594, 1596)

Circa 1943 field jacket. (Courtesy Mrs. Carl Bruck) (1023)

Circa 1944 clothing and accoutrments (?), (Courtesy Mrs. James G. Daniel) (1144)

Circa 1944 officer's raincoat. (Courtesy Edna Coburn) (1720)

Circa 1944 "Eisenhower" jacket. (Courtesy Wm. R. Nicholson) (2742)

Circa 1944 white mess vest. (Courtesy Joan E. Barnett) (1696)

Circa 1944 fatigue cap. (1836)

Circa 1944 enlisted wool trousers. (1810)

Circa 1944 rifle case. (Courtesy Gary W. Munroe, Sr.) (0017)

Circa 1945 cotton belt. (Courtesy Edna Coburn) (1758, 1759, 1760)

Circa 1945 officer's wool shirt. (Courtesy Edna Coburn) (1723)

Circa 1945 wool gloves. (Courtesy Edna Coburn) (1753)

Circa 1945 garrison cap. (Courtesy Mrs. Carl Bruck) (1029)

Circa 1945 pillow cover, with shoulder patches. (Courtesy Joan E. Barnett) (1683)

Circa 1945 officer's uniform. (Courtesy Mrs. James G. Daniel) (1146)

Circa 1945 "Eisenhower" jacket. (Courtesy Edna Coburn) (1719)

Circa 1945 officer's uniform. (Courtesy Joan E. Barnett) (1693)

Circa 1945 dress white uniform.

(Courtesy Mrs. James G. Daniel) (1147)

Circa 1945 field jacket. (Courtesy Edna Coburn) (1721)

Circa 1946 officer's garrison cap. (Courtesy Edna Coburn) (1744)

Circa 1946 officer's uniform. (Courtesy Edna Coburn) (1718)

Circa 1946 field trousers. (Courtesy Mrs. Carl Bruck) (1022)

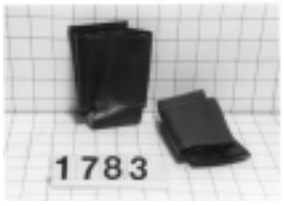
Circa 1950 officer's Cavalry boots. (Courtesy Maj. Gen. Gerd S. Grombacher) (1568)

Circa 1950 web belt. (Courtesy Edna Coburn) (1757)

Circa 1950 Signal Corps insignia. (0969)

Circa 1950 officer's shirt. (Courtesy Edna Coburn) (1728, 1729, 1730, 1731)

Circa 1950 cartridge pouch. (Courtesy Edna Coburn) (1783)



Circa 1951 field jacket. (Courtesy Mrs. James G. Daniel) (1162)

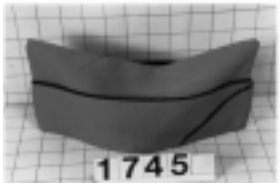
Circa 1952 radio receiver/transmitter, "Walkie Talkie," (Courtesy Gerald Loewe) (1587)

Circa 1955 officer's uniform. (Courtesy William Boynton) (0664)

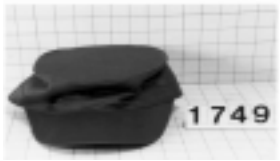
Circa 1955 officer's shirt. (Courtesy Edna Coburn) (1726)

Circa 1955 officer's shirt. (Courtesy Edna Coburn) (1725)

Circa 1955 officer's garrison cap. (Courtesy Edna Coburn) (1745)



Circa 1955 fatigue cap. (Courtesy Edna Coburn) (1749)



Circa 1955 officer's shirt and trousers. (Courtesy Edna Coburn) (1732, 1733)

Circa 1956 radio set, test model. (2572)

Circa 1960 Army nurse uniforms. (0375)

Circa 1960 tie. (Courtesy R. Wilson Vincent)

Circa 1960 Signal Corps guidons. (0853)

Circa 1964? riding boots. (Courtesy Mrs. James G. Daniel) (1160)

Circa 1965 STRATCOM guidon. (0841)

Circa 1965 STRATCOM flag. (0842)

Circa 1965 1st Signal Brigade flag. (2908)

Circa 1965 clothing and accoutrements ??. (Courtesy Wm. L. Boynton) (0665)

Circa 1965 green uniform, MSG. (Courtesy Wm. L. Boynton) (0666)

Circa 1970 flag kit. (Courtesy Maj. Gen. Gerd S. Grombacher) (1558)

Circa 1970 women's coat. (1797)

Circa 1972 officer's uniform coat. (Courtesy Col. Eugene B. Murphy) (0042)

Circa 1975 officer's uniform. (Courtesy Col. Eugene B. Murphy) (0040)

Circa 1975 officer's uniform coat. (Courtesy Col. Eugene B. Murphy) (0041)

Circa 1977 cancellation stamp, Ft. Huachuca Centennial, '77. (1117)

Circa 1980 officer's dress blue uniform coat. (Courtesy Robert Martin) (0056)

Circa 1980 U.S. Army field flag. (1697)

Circa 1980 dress blue trousers. (Courtesy R. Martin) (0055)

Weapons in Storage

M1842 Springfield percussion musket. It was the first gun made in two different armories that had interchangeable parts. It is a muzzle-loading, percussion cap ignition, black powder, round lead ball projectile, smoothbore. It is the type used in the Mexican War and by some

militia units in the Civil War. (2036)

M1892 Winchester carbine. (0601)

Wickam Percussion rifle. (2025)

M1896 Winchester carbine. (2031)

M1917 Colt revolver. (2180)

M1911 Colt automatic pistol. (2182)

M1917 Remington bolt action, 7.62mm, rifle. (2187)

Pocket pistol. (2254)

M1871 Smith and Wesson revolver. (2565)

M1907 bolt action rifle. (3010)

Seven-shot "Defender" revolver. (3370)

The Korean War Uniforms. Much of the Korean War soldier's uniform was a carry over from the World War II fighting in the Pacific. His summer combat clothing was the two-piece herringbone twill (HBT) fatigue uniform, the M1 steel helmet, and the leather rough-out combat boot. The work suit buttons were made of black metal with a "13-star" pattern.

The dark green (Army Shade 7) of the herringbone twill fatigues often faded after much washing and weathering to a pale greenish gray.

The M41 HBT work fatigues with their hip-length jackets and buttoned short cuffs were replaced early in the war by the M42 two-piece fatigues, distinctive for their bellows pockets on the chest and the trousers. The uniform was completed by a billed fatigue cap.

The M42 fatigues were in turn replaced in 1952 by another two-piece fatigue pattern that had plain cuffs and patch pockets on the shirt and normal pockets on the trousers. Some were herringbone twill and later they were issued in a plain cotton twill of a dark olive green color (OG107). They had plain plastic buttons rather than the black metal buttons with the 13 stars. The summer and winter field uniforms were rounded out with a drab web cartridge belt, first-aid packet, pack canteen, and entrenching tool.

Although the chevron pattern of World War II survived on many NCO uniforms in the Korean War, a new, and quick to be unpopular, miniature pattern was authorized in 1948 and discontinued in 1951. The smaller chevrons featured a blue stripe on a gold field for combat arms and gold on blue for support services.

In contrast to the baggy fatigues of the man on the front lines, rear echelon troops such as military police, honor guards, and bandsmen dressed up the fatigue uniform by starching it, wearing a painted or chromed helmet liner, a silk neck scarf the color of their branch, and white laces in the combat boots. Bandsmen could also be seen wearing white duck waist belts and white leggings with the low quarter brown Oxford shoes.

The M43 field uniform, another carry over from World War II, consisted of a wind-proof cotton sateen jacket that could be worn over the herringbone twill fatigues in the summer and over the woolen shirt in the winter. Sweaters and liners could be added, part of the cold weather layering principle used by the Quartermaster designers since the last war. The M43 jacket was an olive green shade. It was accompanied by the M43 peaked fatigue cap with ear flaps. During the winter the cap was replaced by a lined pile cap or the pile cap was worn over the fatigue cap.

The combat boots of World War II, with their double buckled

flap on the top and rough-out leather, saw service in Korea but were replaced by 1951 with a lace-up combat boot of russet leather.

A new field uniform, the M51, began to make its appearance in 1951. The shirt and sweater were dark green rather than the brownish green of the M43 field uniform. The jacket now had snaps instead of buttons on the pockets. The trousers were similar to those worn by paratroopers with large cargo pockets on the side. The M51 field cap could be blocked by the addition of a liner, a style made popular by Gen. Matthew Ridgeway and carried into the 1960s.

The summer service uniform in 1952 was a tropical light tan worsted with russet leather visor and band on the service or "saucer" cap. It consisted of a cotton khaki shirt, trousers, garrison cap or service cap, and a necktie (which could be omitted by local commanders).

The winter service uniform was made up of a short-waisted wool jacket and trousers, shade 33, a garrison cap or service cap, and a necktie. A wool shirt could be substituted for the jacket at the discretion of the local commander. In cold weather a field overcoat, shade 33, or trench overcoat, shade 79, was worn.

A winter and summer semidress uniform, that could double as a dress uniform, was authorized for wear when "not in formation with troops." Winter and summer dress uniforms were optional. Officers often purchased a white dress uniform or white mess uniform for the summer and could pick from the blue dress, blue mess, special evening dress, or evening dress for the winter. The blue dress uniform returned to the 19th century Army blue and gold for its coloring and style. The dark blue, single-breasted coat has gilt buttons with a gilt "U.S." on the collar and gilt branch insignia on the lapels. The branch color appears on the hat band, gold-bordered shoulder straps, and in a sleeve stripe. Field grade officers now have gold embroidery on the black brim of their service caps. The hat strap and buttons are also gold. Again, like in the 19th century, the pants were light blue with a gold stripe down the pants legs.

During the winter, the water-repellant and wind-resistant field jackets with hoods and field trousers were worn over a wool undershirt, a wool flannel shirt, and a high neck wool sweater, wool underdrawers, and wool serge trousers. Often a new type shoepac was worn with two pair of wool socks. Trigger-finger mittens, that had a wool insert under a leather shell, were issued to combat troops.

In 1947 the enlisted, two-piece brass collar disc was changed to remove the regimental number from below the "US" on the right disc. Now only a "US" appeared on the right and only the branch insignia appeared on the left disc.

Weapons. The basic shoulder arm for the infantryman was the M1 U.S. Rifle .30 caliber. It weighed 9.5 pounds and had a maximum range of 3,500 yards. It was gas-operated, clip-fed and air cooled. The M2 .30 caliber carbine was used by support troops. Still in use during the Korean War was the M1918A2 Browning Automatic Rifle, .30 caliber. It could fire from 350 to 550 rounds per minute and had a range of 3,500 yards. The submachine that saw service was the M3A1 .45 caliber. The 1 1/4-pound hand grenade could be thrown 35 yards and had an effective killing radius of 10 yards. The same grenade had a range of 365 yards when launched from a rifle. The M1919A6 (light) Browning .30 caliber machine gun could fire from 400 to 550

round per minute at a range of 3,500 yards. Other infantry weapons seeing action in Korea were the Browning .50 caliber machine gun; the M18 57mm recoilless rifle; the M20 75mm recoilless rifle; the M18 2.36-inch rocket launcher; the M20 3.5-inch rocket launcher; the M2-2 portable flame thrower; the M16 multiple gun motor carriage mounted with two .50 caliber machine guns; the M19 60mm mortar that could fire from 30 to 35 rounds a minute a distance of 1,985 yards; the M1 81mm mortar that could sent 35 rounds per minute 3,920 yards; and the 4.2-inch mortar that could lob 20 rounds per minute over 4,400 yards.

The principal artillery weapons in the Korean War inventory were the T66 4.5-inch rocket launcher which could fire 72 rounds in four minutes at a range of 5,210 yards; the M1 40mm gun on a M2A1 carriage which could fire 120 rpm downrange a distance of 10,850 yards; the M2 twin 40mm guns mounted on the M19 motor carriage that were capable of firing 240 rounds per minute a distance of 10,850 yards; the M1A1 75mm howitzer on the M8 carriage (pack) that had a range of 9,620 and could fire six rounds per minute; the M2 90mm gun on an antiaircraft M2 mount that could get off as many as 28 rounds per minute at a horizontal range of 19,560 yards; the 105mm howitzer (towed) with its rate of fire of four rpm and a range of 12,205 yards; the M4 105mm howitzer on the M37 motor carriage; the M1 120mm gun on the M1A1 antiaircraft mount which could fire fifteen rpm at a horizontal range of 27,162; the M1 155mm howitzer on the M1A2 carriage that could send two rounds per minute a distance of 25,715 yards; the M2 155mm gun on the M40 motor carriage; the M2 8-inch howitzer on the M1 carriage with a range of 18,510 yards and a rate of fire of three rounds every two minutes; the same gun mounted on the M43 motor carriage; the M1 8-inch gun on the M2 carriage that could throw a 240-pound projectile a distance of 35,490 yards three times every four minutes; and the M1 240mm howitzer on the M1 carriage that sent a 360-pound shell downrange a distance of 25,255 yards three times every four minutes.

Korean War armored vehicles included the M24 "Chaffee" light tank that carried a 75mm gun and could travel at 34 mph, and the M26 "Pershing" medium tank with its 90mm main gun and a top speed of 30 mph. The Pershing came into service in 1945 to replace the Sherman M4. With a more powerful engine and some other small modifications, it became the M46 "Patton" tank in 1946. The M47 was a 1951 outgrowth of the M46 and produced in large numbers during the Korean War. Its main gun is a 90mm.

Equipment. The U.S. Army had experimented with body armor before, but it was not until the Korean War that armored vests were issued in large numbers. Some 20,000 M-1951 vests, originally a Marine Corps piece of equipment, were fielded to soldiers in Korea in 1952, and a few months later the Army's M-1952 "Armor, Vest" was issued. The vests were credited with reducing casualties by 30 percent.

Vietnam and After

Uniforms. Following the Korean War, as the U.S. Army modernized, a number of uniform changes were introduced. At the end of the 1950s, a new green (Army Green, shade 44) service uniform replaced the dark olive drab (Army shade 51). The jacket was single-breasted with a roll collar and gold gilt buttons.

Likewise the service cap was green with a bill of black leather. On the enlisted cap was a black leather strap fastened with gold buttons and the round national coat of arms insignia. The low quarter shoes and the combat boots were now black leather instead of the russet that had been traditional since the Spanish-American War.

An enlisted man would have an Army green uniform for wear in the winter, a khaki uniform for the summer including an abbreviated version with short sleeves and short trousers, and a fatigue uniform for field and work. Officers would add the blue dress uniform for social functions after retreat and a tan uniform for semidress in the summer. A blue cape could be worn with the evening blue dress uniform.

A new tropical combat uniform was developed in the early 1960s. It was a two-piece, olive green, ripstop cotton poplin, known as jungle fatigues. M1956 tropical combat boots were mildew resistant and had direct molded soles. Also characteristic of the Vietnam War were the subdued rank insignia and unit shoulder patches worn on the combat uniform. The Special Forces were authorized a distinctive green beret.

The enlisted, two-piece collar brass was altered in 1958. A regimental number was added above the branch insignia on the left disc. In 1968 the collar brass underwent another change. It was changed to add a battalion number below the branch device on the left collar disc. The regimental number appeared above the branch device as it had since 1958. A "US" appeared on the right collar disc.

Weapons. Following the Korean War and during the Vietnam War, the need was realized for different weapons systems to meet different combat conditions around the globe. While warfare began to take on an elemental form with insurgents using primitive weapons like *punji* stakes, technology was altering the face of modern warfare. The technology changes since World War II fall into the areas of rotary-wing aircraft, nuclear weapons, missiles, electronics and computers. It was a time of burgeoning technology and the kinds of weapons systems became so specialized and numerous that to mention them all would take a volume. To get an idea of the high-tech direction warfare was taking in the 1960s and beyond, just some of the modern weapons systems are briefly touched upon here.

The M14 7.62mm rifle replaced the M1 in 1957 and then was augmented in 1963 by the M16 5.56mm rifle, which eventually went on to become the U.S. Army's NATO weapon as well.

Among the Army's inventory of missile weapons are the M79 grenade launcher which can fire a 40mm high explosive (HE) shell some 400 meters.

The M9 9mm Pistol went into production in 1985 as a replacement for the M1911A1 .45 caliber automatic pistol and .38 caliber revolver. Made by Berretta U.S.A. Corporation, the weapon is a semiautomatic double-action pistol with a magazine capacity of 15 rounds and a light-weight aluminum alloy frame. The 1985 contract called for 315,930 pistols and the replacement of the .45 is not expected to be completed until 1994.

Designed for NATO use, with a 7.62mm caliber, was the M60 U.S. Machine Gun. It is fed by a disintegrating link belt, following a German MG-42 model, and can get off 550 rounds per minute. Adopted in the early 1960s, it became the standard squad machine gun for years to come. An improved model is called the M60E1.

The M249 5.56mm Squad Automatic Weapon (SAW) was adopted by the Army in 1982 after being selected over other models after a 10-month trial. It is designed to replace the M16A1 rifles (used in an automatic mode) in each infantry fire team. The firepower of the SAW is twice that of the two M16s they replaced in the squad.

The General Electric M134 Minigun, like the Vulcan 20mm, resembles the Gatling gun of the 19th century in that it employs rotating barrels. Primarily used on helicopters and vehicles in Vietnam, it can get off 6000 rounds per minute using a belt feed.

The M219 is a 7.62 x 51mm NATO tank machine gun that is an extensive redesign of the earlier M73.

The Claymore antipersonnel mine was a new weapon used in Vietnam that could be detonated on command from a friendly position or set off by a trip-wire in the killing zone. The Claymore was aimed to throw its fragments in a fan-shaped pattern.

REDEYE is a surface-to-air weapon field in the mid-1960s for use by the individual infantryman to combat close-air-support, high-speed fighters. It used an infrared homing device and was fired from the shoulder. The REDEYE was replaced by the Stinger POST and Stinger RMP.

The "Davy Crockett" was a 120mm recoilless rifle produced in the 1960s that could fire a nuclear warhead three miles. The weapon was phased out because of the danger of a nuclear mishap.

The infantryman could take on tanks with an array of antitank weapons, beginning with the M72 LAW (Light Antitank Weapon) that could launch a 66mm High Explosive Antitank (HEAT) rocket with an effective range of 200 meters. The Dragon was a medium antitank weapon that could be carried by one man and fired effectively at targets up to 1,000 meters away. It is a platoon-level, antitank weapon that replaced the 90mm recoilless rifle. The M220 TOW (tube-launched, optically tracked, wire-guided missile) is a crew-served weapon with a range of 3,000 meters. It could be ground-mounted on a tripod or in vehicles. Fielded in 1970, it has evolved into Improved TOW and TOW 2. It is the Army's most effective weapon against armor and is also used against crew-served weapons, bunkers, and attacking helicopters.

The changes in the Artillery arm following World War II have included a tendency to favor self-propelled guns, beehive rounds which scatter flechettes as an antipersonnel weapon, the use of multiple launch rocket systems, and most dramatically, the introduction of surface-to-surface missiles. The first of these, the "Littlejohn," was a 14.4-foot long missile that had a firing weight of 780 lbs. and could travel ten miles. The "Sergeant" Missile was deployed in 1961 and, at 10,000 lbs, could travel anywhere between 28 and 85 miles carrying either a conventional or nuclear warhead. The "Lance", a 3,200-lb. missile first tested in 1965, could carry a nuclear or conventional warhead up to 60 miles. One possible warhead for the "Lance" was the "neutron bomb," a weapon developed in 1976 that had just one-tenth the blast, heat and fallout of similar yield nuclear warheads. The production of the neutron bomb was deferred in 1978 by President Jimmy Carter as a goodwill measure before Strategic Arms Limitation Talks (SALT) that year.

The largest surface-to-surface missile

used by the U.S. Army is the nuclear-armed "Pershing," a 10,000-lb., two-stage, ballistic missile with a range of 115 to 460 miles. first tested in 1960, "Pershings" were deployed to Europe in 1983, threatening the Soviet homeland, occasioning antiwar demonstrations in Europe, and eventually resulting in the Intermediate Range Nuclear Forces (INF) treaty in 1988 which called for their removal.

Army Air Defense began using guided missiles as air defense weapons in 1953 when the "Nike Ajax" was deployed around Washington, D.C. The" Nikes" use radar to guide them to their target. The next weapon in the "Nike" family was the "Nike Hercules" which began to replace "Nike Ajax" in 1958. To defend against low-altitude aircraft in the forward army area, HAWK was fielded in 1958, with an improved version (I-HAWK) coming out in the 1970s. The 1980s I-HAWK uses an AN/TSQ-73 "Missile Minder" command and control system.

The "Chaparral" is a system which mounts four surface-to-air missile launchers on a tracked cargo vehicle. The missiles use an infrared heat-seeking device and provide protection from low altitude aircraft in forward areas, as well as division and corps rear areas.

The "Sergeant York" Division Air Defense (DIVAD) Gun employs twin 40mm cannon that are mounted on converted M48 tanks. The "Sergeant York," first fielded in the mid-1970s, can fire 620 rounds per minute.

The "Spartan" surface-to-air missile was the keystone of the Army's Safeguard Anti-ballistic Missile System (ABM) which was designed in the 1970s to detect, track, and destroy incoming ballistic missiles. The program was abandoned for political reasons.

The Multiple Launch Rocket System (MLRS) uses a launcher that can fire 12 free-flight rockets a distance of 30 kilometers. Deployed in batteries of nine launchers, MLRS can deliver a formidable salvo of missiles.

The M48 main battle tank used many of the components of the M47, incorporating a redesigned turret along with some other improvements. It began to be fielded in 1953. As the model M48A3, it borrowed the Continental V12 diesel engine from the M60 tank and became the Army's most used tank. It was the only main battle tank to see action in Vietnam. It employed an M41 90mm gun.

The M60 main battle tank was developed from 1956 to 1959 and fielded in 1959. It has improved range owing to a V12 diesel engine and better firepower due to its more powerful 105mm main gun. It carries more armor than its predecessor M47 and M48, with a front plate 110mm thick. The M60A1 added a needle-nosed turret and became the principal tank up into the 1970s.

The M60A2 main battle tank was adopted in 1968 and incorporated a 152mm gun that could fire conventional arms or a "Shillelagh" missile. The M551 Sheridan was both a light tank and an armored reconnaissance vehicle that fired the "Shillelagh" missile. Both the M60A2 and M551 Sheridan were short lived however and soon replaced by the M60A3 which used a laser range finder for the first time.

The Army's latest main battle tank is the M1 "Abrams," a 60-ton vehicle that came into the inventory in the mid-1980s. It carries a 105mm main gun guided by the laser range finder.

The M113 Armored Personnel Carrier entered service in 1959 after three years of development. In 1964 a more powerful diesel engine was added

making it the M113A1. This APC was produced in large numbers and used by armies around the world. It saw service in Vietnam. I could carry a commander, a driver and eleven men for 480 km at about 34 kph. It mounted a Browning .50 caliber machine gun on its turret.

As doctrine shifted to the use of mechanized infantry squads in the 1970s, the M113 "battle taxi" was phased out in the 1980s in favor of the M2 "Bradley" infantry fighting vehicle which carries a nine-man infantry squad who can fire from its ports. The M2 "Bradley," and its sister vehicle used by armored cavalry troops, the M3 "Bradley," has a rapid-fire 25mm cannon, a 7.62mm coaxial machine gun and a TOW antitank weapon.

A number of Army helicopters were in use in the early 1970s, including the Bell AH-1G attack helicopter armed with mini-gun, grenade launcher and M61 "Vulcan" 20 mm, rocket packs and TOW wire-guided missiles; and the Bell OH-58A "Kiowa," a two-seat observation helicopter armed with a mini-gun, grenade launcher and rocket pod.

The UH-1 "Iroquois" Utility Helicopter, known as the "Huey," was the most widely used helicopter in Vietnam. It could carry 12 soldiers at speeds up to 148 mph. The familiar medium transport helicopter of the Vietnam War was the CH-47 "Chinook," a twin rotor turbojet that could carry up to 44 men at speeds up to 172 mph. Other widely used helicopters in the 1960s and 70s were the OH-6 "Cayuse" observation helicopter and the CH-54 "Tarhe" heavy cargo helicopter, known as the "Flying Crane."

The two helicopters of the 1980s are the UH-60 "Blackhawk," a twin-engine, single-rotor craft which can transport 14 fully equipped troops into battle; and the AH-64 "Apache" which is an advanced attack helicopter armed with a 30mm chain gun, 2.75-inch rockets, and a laser-guided missile system known as the "Hellfire."

Equipment. When the U.S. Army made its first appearance in the American Southwest in 1846, the level of technology employed for maneuver was basically the same as it had been since the 8th century. The Army depended, as did the Mongols, on the stirrup, that device that allowed a mounted warrior to stay aboard his horse while having one arm free to wield a weapon. In just a little over 100 years later, the U.S. Army would leap frog from stirrup technology to helicopter airmobile operations, from signal fires to satellites.

The modern American soldier is the benefactor of the best equipment advances that technology can produce. The result is a plethora of specialized and sophisticated equipment. Some examples of Vietnam and post-Vietnam materiel are discussed below.

In an age of electronic warfare (mainly sea, land, or airborne radar systems which provide tracking for weapons, surveillance, or navigation), electronic counter measures (ECM) require a range of devices that seek to render useless the enemy's electronic gear and deny him the information it provides. A second step, called electronic counter- countermeasures (ECCM) attempts to shield friendly equipment and frustrate the enemy's countermeasures. The Army employs an ALQ-80 Noise Jammer on its CV-2 and OV-1 aircraft. This is designed to produce a density of noise power that will cause interference in opposing radar.

Electronic Intelligence (ELINT) is that information pulled from the air waves, that information that is intercepted from

sources of electromagnetic radiation.

The "Mohawk" OV-1 is an U.S. Army surveillance and reconnaissance aircraft deployed in military intelligence battalions that carries multiple sensors and cameras with on-board recorders and data links that provide real-time relay of information to its base. Variously equipped models (the OV-1A, B, C, and D) have a range of between 1,100 to 1,400 miles and can fly at speeds up to 300 mph. It is powered by two Lycoming T53-6-15 turboprop engines rated at 1,100 horsepower each.

The aircraft is equipped with an AN/APS-94 Side-Looking Airborne Radar (SLAR) system carried in a pod which can photograph targets on both sides of the plane's flight path and send those images back to a base station which can process the exposed film and display it on a light table within seconds of its transmission, giving the SLAR system a near real-time surveillance capability. The ground station equipment can be installed in a 3/4-ton truck with a trailer-mounted power supply. The Ground Sensor Terminal is called the AN/TKQ-2 and the total Radar Surveillance System is known as the AN/UPD-2.

The "Mohawk" also carries the AN/AAs-14 Infrared (IR) Detecting Set which can make permanent film records of the ground below using infrared or visual light emissions. Other cameras can be installed on the aircraft that provide high-resolution mapping of the terrain below.

The RV-1D "Mohawk" is a version of the OV-1d that carries a "Quick Look" system, an intelligence system that uses automatic, computer-controlled electronic intelligence gear to pick up noncommunication emitters and furnish corps and division commanders with their location.

JIFDATS stands for Joint Services In-Flight Data Transmission System and it allows for intelligence information (collected by airborne cameras, infra-red, laser cameras, or side-looking airborne radar) to be sent immediately to ground stations. It is installed on the Army's OV-1D "Mohawk" aircraft.

"Quick Fix" is a tactical jamming system installed in helicopters to intercept and jam radio signals. The helicopters will be a part of divisions, separate brigades and Armored Cavalry regiments.

Remotely Monitored Battlefield Sensor System (REMBASS) uses ground sensors that can detect the movement of men and vehicles, both day and night and in all weather conditions, and transmit that information to command posts. REMBASS, which went into production in 1985, is organic to the ground surveillance company of the division military intelligence battalion.

The PERSID 4A Intruder Alarm is a portable ground sensor unit for use in combat that can detect men, vehicles, or animals through ground vibrations. PERSID stands for Personnel Seismic Intruder Detector and is a four-channel, audio-visual alarm system.

The L-3/A-WJ-1140 Microwave Direction finding System combines a broad-band, directional finding (DF) antenna system with a modular microwave receiving system. It can detect incoming radio frequency signals, pinpoint the direction from which they are emanating, and analyze them while displaying them on a video screen.

FACAC is a Field Artillery Digital Automatic Computer in use since 1965 that can automatically compute and display firing data for tube artillery, missiles, and free flight rockets. It can store fire control data for up to five batteries of both 105mm and 155mm

howitzers.

The AN/GV8-3 Laser Range Finder can be carried by an artillery forward observer and provide him precise range and elevation information. It fires short bursts of high-energy laser beam at the target, and by measuring the time it takes for that beam to leave and return, can display azimuth and elevation. It was procured in 1971.

The "Aquila" Remotely Piloted Vehicle (RPV) is an unmanned, propeller-driven aircraft that is launched from a truck-mounted rail. It can fly into hostile territory, locate targets, adjust artillery fire, provide surveillance, recon, and damage assessment, all by using a TV camera or infrared sensor which transmit pictures to a controller center. Upon its return it is recovered in a net, also mounted on a truck.

The vehicle most common to anyone who has served in the Army since 1960 is the M151 (4x4) Light Vehicle. This jeep look-alike vehicle was in development since 1951 and replaced the M38 4x4 1/4-ton vehicle in 1960. Improved models appeared in 1964 (M151A1) and in 1970 (M151A2) and was phased out after 1979 because it did not meet emission control standards. Its variants included radio communications versions, ambulance conversions, and those armed with recoilless rifles and machine guns. It was replaced by the Hughes TOW ATGW.

Traveling Display Themes

Images of the Apache Campaigns

C.S. FLY: Pioneer Photojournalist

In March 1886, Tombstone photographer C. S. Fly accompanied Department of Arizona commander Gen. George Crook into the Sierra Madre Mountains of Mexico. Crook and his men were chasing Geronimo, the last of the Apache renegades, and held a peace conference with the war leader and his followers. Consequently, Fly became famous for these rare and historic photos he brought back.

The First Genuine Pictures of Geronimo

"Fly is an excellent artist and he was not a respector of persons or circumstances, and even in the midst of the most serious interviews with the Indians, he would step up to an officer and say, 'just put your hat a little more on this side, General. No Geronimo, your right foot must rest on that stone,' etc., so wrapped was he in the artistic effect of his views."

—Tucson Mayor C. M. Strauss, present at the conference

RUFUS F. ZOGBAUM: Military Delineator

Rufus F. Zogbaum, born in Charleston, SC, in 1849, studied art at the New York Art Students' League in 1878 and 1879. He went to Paris in 1880 to study for almost three years under Leon J. F. Bonnat. After observing some of the armies of Europe, his specialty became military subjects and when he returned to America he bagan illustrating U.S. Army subjects for *Harper's Monthly* magazine in 1884. A number of assignments followed. The engravings that appear here were done for an article on the U.S. Army that appeared in *Harper's* in 1890, just four years after the final Geronimo campaign ended.

FREDERICK REMINGTON: Campaigning with the Cavalry in Arizona

Frederick Remington (1861-1909) is unique in the annals of American art as he was both artist and pictorial historian. His graphic records of the American frontier fascinated the readers of magazines during the last part of the 19th century as they captivate today's students of western

Americana. On 9 January 1886, he began his rapid rise to success when he made the cover of *Harper's Weekly*. A print of that cover appears in this collection along with several other original Arizona scenes. Remington was intimately familiar with Arizona and the Apaches, having campaigned with the 10th U.S. Cavalry during the 1880s and 1890s.

FRANK McCARTHY: The Color and Action of the U.S. Army on the Frontier

In the tradition of Remington, Russell and Schreyvogel who portrayed the dynamic history of the West in the last part of the 19th century, Frank McCarthy has long been considered one of the leading Western action painters of the late 20th century. Schooled at the Art Students League and the Pratt Institute under such artists as George Bridgeman and Reginald Marsh, he ended his award-winning career as a commercial illustrator in 1968 so he could move to Arizona and devote all of his time to painting.

The Fort Huachuca Museum's collection of his work is made possible by the generosity of the artist and his printmaker, the Greenwich Workshop. The breathtaking prints shown here are limited to depicting the role of the U.S. Army in the Southwest, but are representative of McCarthy's use of the brilliant Southwestern light and his careful emobidment of the vistas so familiar to the Arizonan.