

THE ARMY of DESERT DESTROYERS

It is His Most Picturesque Fighting Force, and Its Members Are Among the Few Americans Living the Old Frontier Life

BY E. J. EDWARDS.

Do you ever find yourself yearning to taste of frontier life, whose excitement you read about in the latest popular novel, perhaps? And then, as you are in the very midst of this desire to experience the wild life of the plains, does the depressing thought suddenly come to you that America can no longer boast of a frontier?

Oh, well, don't worry. There's still an excellent chance left for you to turn frontiersman. Join, if you can, Uncle Sam's little army of desert destroyers, and it's dollars to doughnuts that before you have been many weeks in this army—officially known as the Reclamation Service—you'll have done just about all the excitement and adventures of frontier life that have ever been described between the covers of any novel.

Of a truth, indeed, life in the Reclamation Service of the Government today constitutes the nearest approach to frontier life on the plains yet to be found anywhere. The construction of immense engineering projects in a God-forsaken country, miles away from civilization, is enough to try the soul of any mortal man. Add to that equation hundreds of common laborers, oftentimes wholly foreign born, who easily become discontented and restless in such forlorn surroundings, and one may readily imagine the difficulties which present themselves. Not only does nature afford obstacles to the successful work of the Reclamation Service, but human nature not infrequently serves to make them doubly hard to conquer.

The working force of the Reclamation Service in itself is a small army. The problems it is called upon to solve are among the most notable problems of engineering in the whole world. Practically none of them lie in the pathway of civilization, but are situated in narrow mountain canyons, or in the desert country of the Far West, where mortal man cannot now exist. And it is the mission of the service to transform these arid and swampy wastes of the public domain into garden spots, and this it is doing as fast as men and money can construct dams and reservoirs to irrigate the land.

The progress of the army of reclamation may be likened to that of an army in time of war which is crossing the waste places of a hostile country. It cannot rely upon the country itself for subsistence. Every pound of supplies and every piece of machinery must be hauled through a new country. In the case of the construction of the famous Roosevelt Dam in Arizona, over \$300,000 was spent by the service in the construction of roads by which to reach the project, and in replacing roads which would eventually be submerged when the project is completed. The army of reclamation now consists of six supervising engineers, from 400 to 500 engineers, 1200 superintendents, clerks and skilled laborers, and from 8000 to 10,000 common laborers, according to the season of the year. In the past seven years and a half, it has expended \$2,000,000 in the reclaiming of hundreds of thousands of acres of waste land to public use.

Naturally, the men who are responsible for this gigantic labor are exceptional men. On the whole, they are big, heavy men of extraordinary physical and mental resources. Practically all of them have at some time or other in their brief careers been brought face to face with the yawning mouth of a gun barrel in the hands of the other fellow. Many of the most prominent officers of the service are graduates of the Geological Survey, in which service they knew old Santa Fe, Tombstone, and other "tough towns" of the West and Southwest in their palmy days. As a result of their comports experiences, there has grown up in the service a policy which is based on the theory that nine-tenths of the alleged troubles of the human race never exist in fact. Consequently, the creed of the service is, as voiced by one of its leading officials: "Avoid trouble where you can, and when you can't avoid it, bury it."

Working as they do in the by-paths of the country, the engineers of the Reclamation Service are frequently brought face to face with men who are not only of the peculiar manifestations of men who live outside of the pale of immediate civilization; they have to deal with violators of the law of the land, and as is characteristic of the really brave men, they are extremely modest, especially when asked to talk about their doings. When cornered by a persistent interviewer they are prone to dodge the issue by telling a story on some of their colleagues in the service, and it was in this manner that the series of experiences here chronicled of men high in the Reclamation Service was secured.



BUILDING THE CONCRETE AND ROCK BALLASTED SHOSHONE DAM, THE HIGHEST DAM IN THE WORLD.

professorship in the Colorado School of Mines at Golden, Colo., a circumstance which only made his offense doubly obnoxious to the veterans in the frontier life of the Reclamation Service. But today he is recognized as one of the best field men the Government has, particularly in the handling of men.

No sooner had Hill begun work on the Roosevelt dam than he found that the stage company that was to resort to the discipline of his force. The only legal means he had at hand to put a stop to the saloons was to resort to the courts for an injunction, and the courts lay 70 miles away. But despite the activity of the court at Mesa, when appealed to, there remained prime evidence that "boot-legging" was going on in camp, and Hill finally had to notify the stage company that the business would have to stop.

When the stage driver heard of the demand he took a solemn oath in public that if Hill ever stopped his coach for a search of liquor one or the other of them would die in his tracks. Nothing daunted, however, by the threat, Hill stepped the coach one day, having with him alone for the purpose with a rifle swung over the pommel of his saddle and made his way up the mountain side of his box and hand over his manifests, which, of course, showed no liquor aboard. Then Hill went through the boxes, at the time keeping a weather eye on the boatful driver. Finally, coming to a promising looking box, Hill ripped the cover off and in the midst of the search he saw a group of thirty passengers and the driver looking on, he coolly hurled twenty-four quarts of whisky, one after another, against the rocky hill nearby.

On another occasion a notoriously bad Mexican who had his liquor smuggling game broken up by the vigilance of Hill, went on a spree, and taking up his rifle, started for Hill's office, vowing to kill the engineer on sight. By luck, somebody got word in time just as the Mexican entered the office. Stamping in through the door with rifle pointed and cocked, the Mexican next instant found himself in the iron chair, which Hill seized him from behind the door. In the twinkling of an eye he had been disarmed and was being taken to the stocks where Hill had kicked him.

Hill's latest exploit along this line was to put another bad man off the reservation for the same kind of business. He was regarding a sign of warning that no liquor should be sold on the reservation, this man opened a bar in a tent and threatened to shoot Hill or anybody else who tried to stop him. Hill saddled up his horse, took down his rifle and paid a social call on the intruder, the upshot of which was that the intruder had the choice of moving or having his place burned down over his head. He moved.

Five Against Madened Hundreds.

E. C. Hopson, the supervising engineer now in charge of the work of reclaiming 175,000 acres of arid and swamp land near Clear Lake, Oregon, can show a list of exciting adventures as long as Engineer Hill's, and he has displayed as much pluck as well. Pluck, by the way, and plenty of it, is a most necessary attribute for any one who desires to become a unit in Uncle Sam's little army of desert destroyers.

Not long ago, when Engineer Hobson had about 400 Bulgarians at work on the Clear Lake project, unknown to a few or any of his four assistants, a feud broke out between several rival gangs among the foreigners, and the first intimation that the bosses had that there was trouble afoot was when a party of laborers took to the sagebrush, and the rest, armed to the teeth with guns and revolvers and any other weapons that came handy, took up the pursuit.

The scene of the outbreak was 20 miles from the nearest town. It was a situation that called for speedy action; there was no time in which to send to the county officials for aid. So summoning his four assistant engineers to him, Mr. Hopson armed them and him-



H. N. SAVAGE, WHO SUPERVISED THE BUILDING OF THE SHOSHONE DAM.

ARTHUR P. DAVIS, CHIEF ENGINEER OF THE RECLAMATION SERVICE.

IRA W. MC CONNELL, BUILDER OF THE GUNNISON TUNNEL.



MORRIS BIEN, THE LEGAL EXPERT OF THE RECLAMATION SERVICE.

self to the teeth, gave his little band a few simple instructions, and then led a charge on the whole bunch of shouters, swearing, fighting Bulgarians. Shots were fired at them from the brush, but, nothing daunted, the five engineers went right at the feudists, and by their sheer grit actually subdued the war and drove every warrior back to camp and to work.

Mr. Hopson's previous most exciting personal experience occurred when the Government sent him up to the Okanogan country in Northwestern Washington to begin the construction of a large project. The labor was assembled when a sudden climatic change coming on the work had to be stopped. For this act of Providence, which inconvenienced them greatly, the laborers were disposed to hold Mr. Hopson and his assistants personally responsible, and at one time it looked as if they might each decorate the business end of a rope. But neither the supervisor nor his assistants were quite ready to stand in a lynching bee, and displaying the same sort of grit that he used later when he cowed the Bulgarian feudists, he made the Bulgarians see that they were in a bad fix, and that they had to make terms with him. He was then able to get out of the predicament by a diplomatic shift from Mr. Hopson's shoulders.

The Woman Who Stopped Swearing.

Another present-day American who knows from actual experience all about frontier life at its best—or worst—whichever way you care to look at it—is Supervising Engineer H. N. Savage, under whose direction the highest dam in the world, with a height of 328 feet—was built between the almost perpendicular walls of cliffs reaching skyward to a height of 1500 feet and how excitement meets the man who attaches to the Reclamation Service at almost every turn he makes is well illustrated by the story Mr. Savage tells of how order was preserved in one of his camps in the mountain region of the Central West.

"The management of the messhouse in this camp," said Mr. Savage, "went so far as to prohibit profanity at the table, and I was the first to enforce it. At the head of the establishment was a woman who was as large physically as any man in camp, and fully as nervous. She was usually backed up by her husband, who was a retired heavy-weight prizefighter of more than local renown in his day. On such occasions the husband usually provided himself with a large-sized meat cleaver as a supplement to his well-known fistio abilities. Furthermore, there was a master of ceremonies in the place, who, at the time, was well known throughout the mountain district as the lightweight prizefighter in the section.

"One day one of the boys let go his string of profanity, which reached the ears of the trio in the kitchen. The woman walked in and grabbing the disturber by the chin, turned him around in his chair and said squarely in his face: 'We don't allow no swearing here. There's leddies present, see?'

"It's needless to say that the rumpus stopped right there, and I may add, whenever a supervising engineer stops off in this community to examine the Government works, he may be certain of a call from this mess-house management, to call their respects."

Braving Death for Three Years.

How the Reclamation Service is furnished adventure by nature when men don't supply it, is exemplified in the career of the man who made the Shoshone dam feat possible, and yet who has remained unheard of until now, and in the survey for the Gunnison tunnel, in Colorado. William H. Lincoln, the inspector in charge of the Shoshone dam feat possible, and yet who has remained unheard of until now, and in the survey for the Gunnison tunnel, in Colorado. William H. Lincoln, the inspector in charge of the Shoshone dam feat possible, and yet who has remained unheard of until now, and in the survey for the Gunnison tunnel, in Colorado.

"Third—Her daughter's disposition to fight—herdly works out sometimes.

"Fourth—Her belief that there is not one honest man left to investigate my work.

"I also wish to add that her fear that her husband may be discharged if her daughter is taken out of school is unfounded. He was discharged for incompetency some time ago."

While working off the beaten track of civilization, the officials of the Reclamation Service frequently run across a type of settler who has lived so long outside the pale of law and order that he is very liable to become unruly when subjected to both at the instance of the new regime in his immediate neighborhood. Typical in this class of trouble-makers was a settler whose land was about to be included in a great reservoir under construction by the service, and who made arrangements for the temporary lease of other land within the reservation, but refused to sign the necessary contract. Then, one day he walked into the head-

quarters of the supervising engineer and laid a sawed-off shotgun and two revolvers on the desk by way of introduction. Thereupon, he tendered money in payment of the rent of his land and demanded his receipt. In reply, he was told that he could sign the contract or take his money or get out or be thrown out. He signed the contract.

The Reclamation Service is headed by a man who has had his share of adventures in the West. This is Arthur Powell Davis, its chief engineer, and because his headquarters are now in Washington, it happens that his most exciting experiences occurred when he was a member of the Geological Survey, from which many of the head men of the Reclamation Service have been recruited. Twice, in the early '80s, while engaged in Government work in Southern California, Mr. Davis endured the greatest of all physical privations, a lack of water.

"On one occasion," said Mr. Davis, "we were sent out to climb a high

mountain covered with white thorn underbrush, the worst in the world. Our starting place was near the edge of a canyon, from which point, with the aid of the rancher, we picked out what we believed to be a feasible route for the ascent. It was a red-hot day and every foot of our way had to be cut through the underbrush with axes. In the thick underbrush the air was stifling, the water in our canteens became so hot that, nevertheless, it disappeared with rapidity. When night came on we were a long way from the top and none of us slept or ate for lack of water.

Adventures of the Chief Engineers.

"The next day we beat a hasty retreat on foot. Arriving at the ranch, we were unable to quench our thirst although our stomachs were soon full of water. In the heat of the day before our blood had become thick, and when we were too full to drink more we lay beside the pools of water and filled our mouths and let it run out, still suffering the torture of complete deprivation. It was more than an hour before we felt refreshed, the water having in the meantime reached the blood.

"On the way down the mountain, we had seen another ridge, on which the underbrush was burned, and had also noted that the mathematical knowledge of the next day we took saddle horses, reached the summit of the mountain by noon, by that ridge, completed our survey and reached the top of the mountain. When the ranchman came I told him about it and he replied:

"I forgot all about that trail. It comes right down by my bee ranch, too."

Morris Bien, who looks after the legal matters for the Reclamation Service and is also stationed in Washington, is another old graduate of the Geological Survey. One expedition he accompanied into the Southwest a number of years ago was headed by a man who looked like a college graduate, but he had to fall back on the services of two college graduates, who worked out the mathematical calculations for him. Inasmuch as figures of large dimensions were unknown to the chief, he drew a picture of the greatest impudence when the answer was not arrived at immediately. Finally, a graduate of a Swedish university and an exceedingly able engineer, was added to the force. One day he ran into the chief, who was swearing at the "new-fangled notions of the college grad," and together they were deep in the mysteries of logarithms, working out a problem.

"New-fangled notions," roared the Swede. "New-fangled notions," roared the Swede. "New-fangled notions are older than all of us put together, and 1600 years more."

As is the case with most of the head men of the service, both Mr. Davis and Mr. Powell are college men. And it is used to be said that men of education were not fitted for frontier life—and here comes along the Reclamation Service, in which the head men are fitted for frontier life, but also know how to cope with it and make it profitable. It is difficult feat in up-to-date civilization.

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AUTOGRAPHS HIDDEN IN AN OLD ATTIC

Volumes of Rare Signatures Collected Since Year 1842.

A BURIED treasure has come to light in New Bedford, Mass. It was not dugged by the light of the moon from a garbled tree, it was carted in broad daylight from an old attic.

Bustly living treasures brought by her husband from over seas, quaint scraps of paper with royal seals and signatures upon them, old letters of Colonial times, there was a New Bedford woman who arranged very slowly during winter evenings, piece by piece, letter by letter, one of the most complete American autograph collections in the world.

Not till the possessions of Miss Mary B. Hathaway came into the hands of her counsel, Oliver Prescott, did anyone realize the value of the 40 volumes of autograph letters of distinguished public men, made by her mother, Mrs. William Hathaway, which have set collectors all over the state a-talking.

Mrs. William Hathaway, daughter of a wealthy and blue-blooded Colonial family, one of the "hill people" of New Bedford, began the collection in 1842.

Commanding in figure, silent, and an aristocrat to her finger tips, she was little known by the townspeople. Save for a formal "Good evening, you!" at the meeting-house door she spoke only a half-dozen words to them in a lifetime. To a few of her friends, however, she would talk charmingly, always of the world outside, and of people great and distinguished.

When she threw open her Colonial mansion on Orchard and Arnold streets, rich with scarlet brocades, ivories from the Orient that her husband had brought her on his voyages, containing Chipendale and Sheraton furniture, and the original cases in which they were im-

ported, she would show the few who were honored by the invitation to her home the signature of Napoleon on a curious parchment-like document. She would show them, also, a homely letter, full of affection, that Benjamin Franklin wrote to his wife, whom he addressed as "Dear Debby."

She could point to the wall where she had hung a letter from Benedict Arnold written to his wife, beginning "Dear Peggy." She could turn the leaves of one of her scrapbooks and show them autographs of nearly all of the signers of the Declaration of Independence.

Not till recently, when the property was disposed of and the treasures hidden for years in the attic were brought to light, had any one an idea of the completeness or value of the collection. Some of the letters are worth \$600 apiece. Mrs. Hathaway had obtained a signature of John Morton, a signer of the Declaration of Independence, whose letters are said to be worth \$1000 each.

In all there are 40 volumes of these letters and signatures, which Mrs. Hathaway carefully arranged herself, and annotated with printed magazine and newspaper clippings and fine steel engravings.

Each volume is bound in cloth, with its title in fine gold letters across the back. Some of the titles are "Signers of the Declaration," "Foreign Statesmen," "Napoleon, Louis XVI, Oliver Cromwell, famous Generals and statesmen; "American Authors," a collection of letters; "Presidents of the United States," "Presidents of Colleges," in two volumes, "Union Patriots of the Civil War," "Union Soldiers of the Civil War," "Officers of the Revolution," "Statesmen of the Revolution," two volumes of "Presbyterian Clergymen."

The signature of George III is on a commission of a First Lieutenant, signed at the court of St. James, December 6, 1783. Sprawled in weak ink in a regal

fashion across the top of the sheet is George R. (Rex). The initial G. is fully two inches high, and the R with the final tail is two and one half inches high. The N. I. (Napoleon Emperor) which the Emperor who changed the face of Europe implanted on an officer's commission. It is fully two inches high and it also changed the face of the document.

As one would expect, Cromwell signs himself in a blunt, clear hand, but the curl of the C, the gyrations of the tail of the final L, describe more parabolas than do all the royal P's and Q's together. The signature of Cromwell is affixed to a printed document, of which there is only a fragment, but enough remains to show the concluding "Sealed and Delivered in the presence of O. Cromwell."

Mrs. Hathaway may have been in secret a suffragette, for she had favored enough in the future greatness of women to devote a complete volume to them. In the book titled "World's Distinguished Women" are the signatures of the Mother of General Lee, Mrs. Alexander Hamilton, Mme. de Staël, dated Stockholm, October 1793, Queen Victoria, Florence Nightingale, a poem and signature of Harriet Beecher Stowe, dated Andover, July 26, 1822.

One or two prospective buyers lifted the lids and found that the garments dropped to pieces when they took them out. Maurice Flagg, instructor of drawing in the Swain Free School of Design, took a chance upon the contents of two of these trunks and purchased them for \$23. The faded and moth-eaten silks of the trays were practically useless, but at the very bottom were valuable loaves.

These he took to a lace buyer to ascertain their value. The buyer told him that he would give him \$500 for them, but that they were probably worth \$1700. Mr. Flagg heard afterward that they were worth \$2,000.—Boston Herald.

Engineer Hill, Tamer of "Bad Men."

One of the greatest obstacles to be contended with by the Reclamation Service is the liquor question. No matter where the service may pitch its tent, be it in the wilderness of canyons in Arizona or New Mexico, or in the desert country of Nevada, or some other state, the rum-shop, in the person of some stout-mouthed, swaggering "boot-legger," makes its appearance sooner or later. Among men of comparatively low standards of living, such as frequently constitute the common labor of the Reclamation Service, liquor affords many vexing problems which sometimes threaten the success, as well as the success of the project. Twice has it been necessary for the government to step in and buy out rum-shops for the construction of the project.

Supervising Engineer Lewis C. Hill, who is in charge of the construction of the big Roosevelt dam, has had his troubles in this direction, but he has never failed yet to meet the emergency, notwithstanding the fact that he has "looked down the other fellow's gun" more than once. Hill is one of those jolly fellows who, however, has a faculty for doing everything he undertakes with great earnestness.

When he first went into the Reclamation Service he was a "tenderfoot" of the first water. Not only was he a graduate of the University of Michigan, but he came into the service from a full