THE UNITED STATES MARINE CORPS.

BY WALDON FAWCETT.

The United States Marine Corps is an organization which antedates the Constitution of the nation, but it is only during the past few years, or, to be exact, since the Spanish-American war, that it has gained general recognition as one of the most valuable and

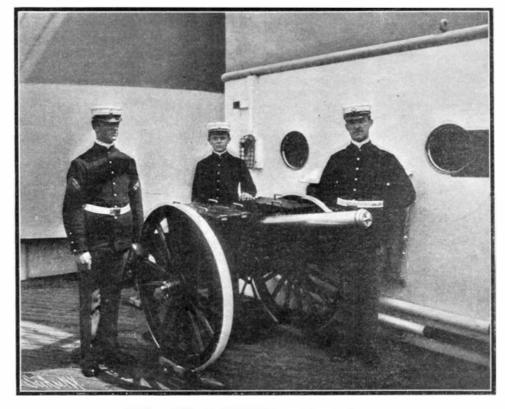
important branches of our fighting service. There has been a disposition on the part of some persons to confuse the marines with the seamen or "blue jackets" of the navy, from whom they are in reality entirely separate and distinct. Indeed, the marines more closely resemble soldiers than sailors although their duties partake of some of the characteristics of each service.

On shore duty the marines conform to army regulations and are expected to combine to a considerable extent the functions of the infantryman, engineer, signalman and light artilleryman. In order to permit this versatility of operations the working equipment of a detachment of marines detailed for shore service embraces Krag rifles, Colt automatic, Gatling, or some other type of rapid-fire guns, picks and shovels for throwing up entrenchments, and apparatus for signaling by night or day. shipboard the marines have nothing to do with navigating the vessel, but man the secondary batteries, act as sharp-shooters in the military masts, and in the event of a conflict at close quarters are

depended upon to repel the attacks of boarders. The United States marines range from eighteen to thirtyfive years of age and have an average height of five feet six inches. The men enlist for a period of five years and receive from \$13 to \$22 per month, in addition, of course, to food, clothing, medicines and, in short, every necessity. The privates of the Marine Corps are not sent to sea until after they have been thoroughly drilled in their various duties at one or another of the training schools maintained at Washington, Annapolis, Brooklyn, Norfolk, Boston, Portsmouth, and League Island. The work of these institutions includes the drills of the soldier, company and battalion, skirmishing, target practice, and bayonet exercise as well as all military duties and ceremonies. The marines wear khaki when oc-

Fig. 1.—The Cooper Hewitt Lamp in the Photographic Studio.

casion warrants, but are possessed of a full-dress uniform, which is possibly the most conspicuous worn in any branch of the United States military service. The caps and coats are of dark blue; the trousers and overcoats of light blue, trimmings being of scarlet. The marine, when on board ship, is assigned the regular blue-jacket ration, which is accounted as equiva-



UNITED STATES MARINES WITH FIELD PIECE,

lent to thirty cents, but, when on shore, receives the army ration, which is rated at seventeen cents per man per day. When landed from war vessels it is, of course, essential that the marines travel in light marching order and accordingly they do not make use of the regulation army tents but use instead the Sibley tents. One of these tepee-like shelters will accommodate sixteen men, sleeping with their heads together at the center pole and their bodies reaching out in all directions like the spokes of a wheel.

While the marine is supposed to know something of the sea he is not presumed to be a good seaman, and is never called upon to help coal the ship or perform other tasks which rank as the especial duties of the enlisted men of the navy. For the most part the work of marines afloat is made up of

such light tasks as guard or sentry duty and service as "mail orderlies" or official messengers between ship and shore. The marines are entitled to much of the credit for the superior marksmanship which has been the most striking feature of this country's naval progress since the Spanish war. Formerly the responsible position of gun-pointer was open only to seamen, but now there is an opportunity for any enlisted man on a warship to win the extra pay and prizes which attach to this coveted post, a gun-pointership being a rating rather than a position. Not only are numerous marines serving as gunpointers, but there are on the prominent American naval vessels not a few guns which are manned entirely by these "soldiers of the sea."

One of the most important but little emphasized functions of the United States Marine Corps is found in its influence against mutiny on the vessels of the American navy. The necessity for such a safeguard will be better appreciated when it is taken into consideration that in seeking men for the rapidlygrowing navy the enlistments sometimes show twenty foreigners to one American, and it is hoping for too much to expect a set of foreign sailors to be true to the flag under all circumstances. The marines, on the other hand, are almost without exception American born and the detachment on a ship constitutes a body separate and distinct in interests and sympathies from the crew proper.

Officers of the Marine Corps are on the same footing

as to rank and privileges as similar grades in the army. Of late a movement has been inaugurated to give them a higher degree of technical knowledge, and applicants for an officer's position in the corps must spend a year or more in the Annapolis school for the instruction of commissioned officers of marines. The increasing governmental appreciation of the value of the Marine Corps as a branch of the military establishment is found in the fact that whereas, a few years ago, the ranking officer of marine could have no higher rank than colonel. Gen. Elliott, the new commandant, has the rank of brigadier-general and has fully 8,000 men under his direction. Of this full strength several hundred are boys, ranging from fourteen to twenty-one years of age, who have been enrolled as buglers and drummers, and two of whom are attached to every United States war vessel carrying marines.

THE MERCURY VAPOR LAMP FOR PHOTOGRAPHIC WORK.

BY FRANK C. PERKINS.

The mercury vapor lamp, unlike its rivals in artificial illumination,

derives its light from the vapor of mercury, which is raised to a high state of incandescence by the electric current passing through it. The light produced by all of the other forms of electric lamps depends on the incandescence of a solid, which is sometimes carbon and at other times other material in the form of rods or filaments, as in the arc lamp, the incandescent lamp, and the Nernst lamp.

The accompanying illustrations (Figs. 1 and 2) show the mercury vapor lamps as employed in the photographic studio of Mr. E. C. Pratt, at Aurora, Ill. The illustration, Fig. 1, shows the Cooper Hewitt lamps in position for making negatives, the mercury light being used as a perfect substitute for daylight, while (Continued on page 111.)

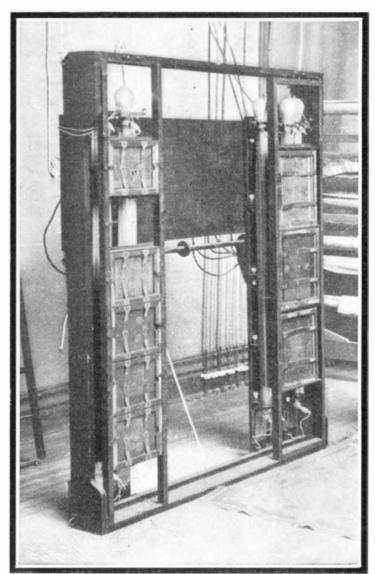


Fig. 2.—The Cooper Hewitt Lamp Used for Printing.