

UNCLE SAM'S RECRUITS

Applicants for Enlistment Come from All Ranks of Life.

RIGHT MEN ARE PLENTY

Largest Recruiting Station in United States is in New York City—Married Men Not Desirable, as a Rule Few Apply—Applicant Must Be Twenty-One.

Just at the present time Uncle Sam is very particular about whom he accepts for enlistment in the army, says the New York News. Only the flower of American manhood and such eligible young men of foreign extraction have declared their intention of becoming citizens are accepted now. The reason for this is that the army is made attractive enough to induce the right kind of men to enter the service of the Government.

In the first place, the pay is far higher than in any foreign military service, and the chances of promotion are greater. Another reason is that the Government can get all the men it requires for the army is the chance of foreign service. That is a good drawing card with many young men who want to see the world.

Applicants for enlistment must be between the ages of twenty-one and thirty-five years, of good character and temperate habits, able-bodied, free from disease, and able to speak, read and write the English language.

The right kind of men are abundant, so that the recruiting officer can take his pick of the many applicants. The latter are from all the various walks of life, and include mechanics, newspapermen, clerks, lawyers, and sometimes men of independent fortune, who enter the service from love of it.

Occasionally a young sprig of nobility, having for some reason of his own left his ancestral home in Europe enlists.

Very few married men enter the army. They are only taken upon the approval of a regimental commander or other competent authority. Very few are chosen.

In the infantry, coast artillery and engineers the minimum height is five feet four inches, with weight not over 150 pounds, or less than 124 pounds. For the cavalry and field artillery the height must not be less than five feet four or not more than five feet ten inches; with weight not over 168 pounds. The chest measurement must be proportionate to the height and weight.

After the recruit has passed the requisite medical examination, and is accepted, he is sent to Fort Slocum, Long Island Sound. Here he is taught the first rudiments of the soldier's profession. In what is commonly known as the "awkward squad" the recruit is instructed how to stand and walk erect.

Having attained a certain amount of instruction, he is passed on to the regiment to which he has been assigned. Here his military education is continued for about a year. By this time he is supposed to be a competent soldier.

All enlisted men receive, in addition to the regular pay, rations, clothing and medical attendance. There is also a chance for a careful man to save money on his clothing allowance. The rates of pay are varied and range from \$13 per month for privates and \$34 for sergeants and \$50 for chief musicians. Besides that a private has the opportunity to rise to the rank of second lieutenant, at \$125 per month.

In some branches of the service men with trades get increased pay, varying from \$1 to \$5 per month more than the private. The corporal's pay is \$15 per month; that of sergeant \$18; first sergeant, \$25; sergeant-major, \$34; battalion sergeant-major, \$36. In the Hospital and Signal corps the pay is higher. For instance, the private in the Hospital Corps is paid \$16; first class private, \$18; corporal, \$20; sergeant, \$25; first class sergeant, \$45. In the Signal Corps the private's pay is \$13 and \$17; corporals and cooks, \$20; sergeants, \$34 and \$45, and master signal electrician, \$75.

For foreign service such as the Philippine Islands, Guam, Alaska, China and Panama, the men get an increase of 20 per cent on the regular rates of pay.

When a man re-enlists after the expiration of his term of three years, if within three months of the date of his discharge, he gets an increase of \$1 for the month for the first year, \$2 for the second, \$3 for the next, and thereafter \$12 per month additional from the sixth to the tenth years of service. After the tenth year the increase is \$1 per month for each successive five years.

The soldier can deposit his savings and draw interest at the rate of 4 per cent. These deposits are non-forfeitable, except for desertion. All money saved from the clothing allowance is paid to him on his discharge from the service.

After twenty years' service, honorably discharged men are entitled to admission to the Soldiers' Home at Washington. After thirty years' service they can be retired on three-fourths of the monthly pay and \$9.50 per month additional for clothing and subsistence.

Foreign Newspapers.

About 1,500 newspapers and periodicals are published in Berlin at the present time. Among these are about 30 political dailies, 30 suburban papers, 32 political and social-political journals, over 60 comic papers, and over 40 women's journals dealing with the "Feminist" movement.

MAKING GLASS EYES.

Price Reasonable—New Eye Required After Two Years' Wear.

One would not suppose the demand for artificial eyes great enough to warrant the erection of vast manufacturing plants, big retail establishments and distributing depots, yet the manufacture of glass eyes has developed into a great industry, and the output is no greater than the demand.

The method of making glass eyes requires not so much the artisan's skill as the ability of the artist. A specially prepared glass that comes in long opaque tubes, as big in circumference as an average sized cane is used, and the coloring is done with long glass pencils. These are cut into three or four inch lengths, each division sufficient for one eye. The length is held over an intensely hot fire and drawn out at both ends to long slim points. The bulb in the center is then enlarged slightly and one point is cut off.

To color it is the next and most delicate part of the manufacturer's work. The iris is the first part colored. A body color is applied. This is followed by the pupil, after which the tiny veins are worked out. All this is worked over the white body, or sclerotic coat, and most eyes are then complete. Some, however, are enameled before they are sent out of the factory. These are dipped into a crucible filled with enamel. An intense fire kept burning beneath the vessel, requires that the crucible be made of platinum.

At the end of two years the enamel is generally worn off. The irritation caused by the eyelid rubbing against the unenameled glass necessitates a change, and a new artificial eye has to be procured.

The idea that a glass eye can be moved by the optical muscles is erroneous. If it moves at all it is merely a result of the action of the eyelid.

The price of artificial eyes is extremely reasonable. From \$5 to \$10 cover most cases, and it is only a "made to order" case that is expensive. Even then \$30 is the outside price.—New York News.

Warsaw's Woes.

Warsaw has been having an exciting time of late, but, according to what is written, Warsaw ought to be used to it, for that city has experienced many a doleful time in its long and checkered history. That history reaches far back into the mists of mediaeval centuries. A certain Duke Conrad erected a castle on the site of the present city in the ninth century. Since then wars and battles have been plentiful thereabouts. Warsaw is beautifully situated in a gently undulating, fertile plain, for the most part on the left bank of the navigable Vistula river, 494 miles east of Berlin. It is defended by nearly twenty detached forts. The main city lies close to the river and is closely built. The streets are regularly laid out, except in the old city, where its ancient houses are quaint and its thoroughfares are crooked and narrow. There are eleven gates, beyond which lie the new suburbs. The old Polish nobility loved display and there are more than 100 palaces, of which sixty have been confiscated by the Russian government.

Today Warsaw is a big town. In 1897 its inhabitants numbered 638,208, about one-third being Jews. Germans form a considerable portion of the population and the Russian garrison comprises over 30,000 soldiers. Although Warsaw has lost its political importance, it is increasing its prestige in all other directions. It is still the gay, active metropolis of Poland, whose literature and art it dominates. Warsaw's industrial importance, though considerable now, is of comparatively recent growth. It has hundreds of establishments employing thousands of men. It is a great railway center and the chief distributing point for a vast and fertile district. Warsaw's artisans have always been keenly alive to their national wrongs. They are most patriotic as a race and the result has been successive outbreaks against the rule of Russia. There is turn have brought about successive and wholesale deportations of the workers, which have tended to retard Warsaw's growth, but have never been able to stop it.

In 1863 the Russian government undertook to crush the spirit of rebellion that permeated all classes of society. Executions, confiscation and exile to Siberia were in order on an unheard-of scale. High schools and scientific societies were closed and the monasteries and nunneries were emptied. Hundreds of Russians were called in to fill up the vacant posts and the Russian language was made obligatory as far as was possible. The very name of Poland was expunged from official writings and Russian tribunals administrative institutions were introduced.

Work Without Pay.

In his "History of Coal Mining," R. W. Galloway points out that what appears to be traces of a primitive state of servitude existed in Staffordshire, where the laborers employed in the haulage of coal continued to be known as "bondsmen"—a name probably coming down from a remote period; a supposition which receives support from a peculiar service required of them, known as "buildases." This consisted in working at times in the morning without receiving any payment beyond a drink of ale. This custom of exacting labor without pay is supposed to represent some ancient service required from their tenants by the monks of the Abbey of Buildwas, in Shropshire, whence the name was derived.

MODERN SEEKER FOR GOLD

His Method Differs From Those of Old Prospectors.

DRILL USED IN THE WORK

Great Cost Sometimes Incurred in Projects Preliminary to Opening Mine—Chemical Laboratory Carried by Pack Animals—Maps Drawn on the Spot.

The yield from the gold mines has increased 60 per cent in less than a decade. In seeking the reasons for this truly remarkable development one is especially prominent—the great advance which has been made in the methods followed by the modern gold seeker. The prospectors, says the Scientific American, have taken advantage of progress in geology, chemistry and other sciences and have provided themselves with mechanical aids which are far superior to the crude implements employed by the metal hunters of the past.

In the examination of rock for metal bearing ore, the arrastra of the Mexicans and Spaniards has been used extensively, especially in California and Oregon. This contrivance consists of a vertical shaft or axis, which supports several wooden bars fastened at right angles to it. To the ends of the bars are attached heavy flat stones, which, by the movement of the axis, revolve in a circular pit, a stream of water is turned upon them and the arrastra placed in motion by animal or water power. The ore is resolved into a slimy sediment by being ground in the water and passes off through the sluiceway, which is provided with riffles for catching the gold.

The modern methods for searching for deposits of precious metal are so radically different from those described that it may be said a revolution has taken place in prospecting in the United States. In the Rocky Mountain region the formation has been pierced as far as 2,000 feet in the effort to ascertain the existence of a vein.

Among the mechanical appliances which have been of great assistance to the modern prospector is the drill. With it he can make borings in a week where, if a shaft were sunk, a year would be needed. If the formation is to be examined by a shaft, however, the cost of sinking it is reduced to a minimum by means of explosive cartridges, which are now manufactured especially for such service.

Few expeditions of any size are sent out without an experienced geologist, who is usually provided with maps and other data giving the best information available regarding the region to be explored. Besides the geologist, the services of an expert chemist are also of great importance and a laboratory in miniature is contained in the packs carried by the animals. So complete is this portion of the equipment that a fairly correct field analysis can be made of the specimens secured by the use of the drill or by the other prospecting tools. If the outcropping of a quartz vein is discovered, enough is broken off to allow its character to be studied both from a geological and a chemical standpoint.

After examining it in connection with the formation in the vicinity, the geologist is often able to indicate where the surface can be bored with the possibility of reaching the ore bearing stratum at once.

The value of the ore from the outcropping and that from the interior can be approximately determined by the chemist. To crush the ore is a slight undertaking, and with the lead which he has brought along the material can be readily fused in a portable furnace. In fact, he has the essentials for making a "dry assay" on a limited scale, for cupels are now made of such light weight that they can readily be carried on muleback.

In the outfit of the modern prospector quicksilver has become practically indispensable. Its affinity for gold makes it a most valuable agent. Where the existence of placer gold is imagined, the introduction of mercury into the test washer soon solves the problem and avoids the use of rifles and other crude appliances which were formerly dependent upon almost entirely. After crushing the specimens of test ore, the quicksilver can also be used to ascertain the quantity of free gold among the particles. As the mercury can be eliminated by heating the composition to a sufficiently high temperature, it is now utilized in large quantities by the modern prospector.

Taking the ingot of lead and of precious metal he can easily oxidize the lead by placing it in his cupel and heating the latter to the required temperature in an oven constructed of material which he can obtain in the vicinity. With his nitric acid he separates the silver which may remain, leaving the gold only to be tested for its value. The proportion of the gold to a given quantity of ore can be determined by his scales, but by using his touchstone or black basalt he can detect the quality of the gold by the color which this substance makes when drawn over the surface of the metal.

Herd of Buffalo in Oklahoma.

Ranch 101 in the Ponca reservation has purchased from a half-breed Indian at Missoula, Mont., a herd of twenty fullblood buffaloes and will maintain them for breeding purposes. Probably the largest fullblood buffalo in the United States is now on the ranch. It was purchased from "Pawnee Bill," and when in good flesh last summer weighed 2,200 pounds.—Kansas City Journal.

EARLY ELECTRIC LOCOMOTIVE

First Really Built 75 Years Ago—Inventor Died Without Reward.

It is generally supposed that the electric locomotive is of recent invention. Comparatively young men can remember the first electric cars which were operated for public use, and it will surprise many to learn that the invention which has led up to the splendid developments of today is three-quarters of a century old.

There lived in Brandon, Vt., in the year 1831, a blacksmith of the name of Thomas Davenport. He was not only a good smith, but a man of advanced thought, and possessed of a remarkable genius for experimenting on various lines; and in this year he constructed a model electric motor car which ran upon a few feet of circular track and was actuated by a galvanic battery.

This was the first electric locomotive ever built. At that time Stevenson's first steam locomotive had been in operation only about ten years. This model was exhibited at Springfield, Mass., and later at Boston, and its priority is unquestioned.

There was a vast difference in the conditions under which these two tractors—one of steam and the other of electric—were born, a difference which delayed the development of the electric locomotive for half a century and gave the steam locomotive a start toward a magnificent development which has only just been overtaken by its rival.

When Stevenson built his engine his power (steam) was readily available. Its capacities were understood and its production was comparatively easy. His locomotive was invented when the power was ripe for it. Davenport, on the other hand, was far ahead of his time and died without notice or reward. His memory has been unhonored up to this day, but the development of his idea made seventy-five miles an hour two weeks ago. His locomotive was invented when his power (electricity) was little understood and was obtainable only from a few small battery cells, useful solely for laboratory experiments. No method of obtaining electrical energy, force, or power from any source but these batteries was thought of until thirty years later.

In 1861 an Italian named Pacinotti, invented the dynamo—the machine which, connected to a steam engine or other power producer, generates an electric current without the use of batteries, the machine which has made possible electric lighting, electric traction and electric power for all mechanical purposes.

When the dynamo was first introduced only one-half of its capabilities were understood. The inventor had produced a machine more powerful and more magical than he himself suspected it. It was known that it could be installed in an engine room and its current used for electric lighting; but the fact that its current could be carried over wires and used to operate cars miles away was not known or acted upon for nearly twenty years. The minds of men during this period were engrossed in the perfection of the dynamo and the problems of arc and incandescent lighting and the railway motor was utterly neglected.

In 1879 Messrs. Siemens and Halske of Germany built at the Berlin Exhibition an electric railway about one-third of a mile in length with a locomotive drawing three cars carrying twenty people. This was the first practical motor ever shown. It was followed the next year by another from the same works, which was put in operation at the Zankerode mines. This was the first electric locomotive in the history of the world to "earn its own living." Still, a year later, the same firm equipped a railroad from Berlin to Lichtenfelde, a distance of one and a half miles. This was the first electric railway for public service and it was an operative financial success from the start.

And then the world awoke to the possibilities of the new system.

Very few engineers are bold enough to say that they know the limitations of the electric current; very many admit their own limitations as to the control of the giant. The question as to its availability for locomotive power is settled. No steam locomotive has ever been built to develop three thousand horsepower. The questions of conducting the current over long distance trunk lines and the economy of operation are yet to be settled.

Slaughter of Squirrels in Scotland.

The slaughter of 3,988 squirrels by the Ross-shire Squirrel Club during the past year is part of the war that has long been waged in various parts of Scotland. At one time the squirrel bade fair to become extinct in that country, but the afforestation of the latter part of the eighteenth century saved it, and helped it to develop to the proportions of a plague. The squirrel has a passion for the young shoots of trees, and its nibbling is apt to stunt the tree's growth, fir buds and bark suffering particularly. And so hearts are hardened against the squirrel, in spite of its pretty ways and name—which, literally, means "little shady tail," being a diminutive of the Latin "soturus," which is simply Greek Latinized. The Greeks called the squirrel "shady tail" just as they called the cat "wavy tail"—all-ours.—New York Globe.

Devils Were Plentiful.

In ancient and mediaeval times it was supposed that devils were countless in number. According to a writer the Talmudists used to assert that there were 7,405,926 devils. One old authority on the subject affirmed that every human being has 1,000 devils on his right hand and 10,000 on his left.

HEARTS WORK OVERTIME

As a Result More and More of Them Break Down.

ALL CLASSES AFFECTED

Tremendous Increase in the Mortality From Heart Disease—Temperate Habits, Sufficient Rest, Exercise in Fresh Air and Freedom From Anxiety Best Safeguards.

"Bad whiskey, rheumatism, mental strain and high living are among the leading causes of heart disease," said Dr. Henry P. Loomis in the New York Sun.

"A chart sent out by the Health Board, which illustrates the steady increase in mortality from heart disease in this city since 1868, and it includes a table of figures of deaths resulting from Bright's disease and heart disease combined, and shows that in 1868 13 persons out of every 10,000 died from the causes named. In 1901 the proportion had jumped up to 30 in every 10,000, or more than double.

"There are cases of heart disease which are not complicated with Bright's disease," continued Dr. Loomis, "but it is not often that a sufferer from Bright's disease is free from heart trouble.

"Many cases of heart disease are directly traceable to mental strain and high living, the heart being indirectly affected through other organs.

"In nine cases out of ten—well, no, that's putting it too strongly, perhaps; I would say rather the majority of the cases of heart disease which come under my notice are due to rheumatism in many forms.

"Heart disease is not an ailment confined to one class. It is fatal alike to rich and poor. Persons with a tendency to rheumatism, who are subject to frequent attacks of rheumatism, do much harm often by fighting the attacks instead of giving up to them."

"How give up to them?" the doctor was asked.

"By going to bed at once and staying there till the disease yields; by avoiding exposure and remaining in an even temperature. Naturally the shorter the attack the less strain there is on the heart.

"Certain forms of throat trouble common to children are indicative of rheumatism and they should be treated accordingly; that is, the patient should observe the proper precautions. It is safer for a person inclined to rheumatism to wear flannels the year round and use every preventative to stave off attacks of the disease if he wants to keep his heart in good working order.

"It is true, of course, that one may have heart disease and yet not be afflicted with rheumatism, and vice versa. Speaking generally, I would say that in the case of the rich, I believe that rich food and lack of proper exercise, excessive drinking and a persistent mental strain are the main causes for heart disease.

"The strenuous life plus mental anxiety is in these days almost irrevocably associated with the upper classes. I don't think, though, that there is any increase in drinking among the rich, in fact, I believe just the reverse; and the rich man has this in his favor—he at least can drink good liquor when he drinks at all.

"With the poorer classes it is different. The great army of mechanics, drivers, and laborers who work out of doors are more or less a prey to heart disease, not only because of prolonged exposure, which fosters ill which in turn weakens the heart, but because of the drinking habit, which is often acquired in consequence of this exposure. Hurry is bad, but not nearly so fatal as worry and fret to a weak heart."

The Mexican Cactus.

The most hated cactus in America is the cholla. The Mexicans say that if a person goes near a cholla joint it will jump at him. Certainly if one is touched it will stick and when you try to free yourself it will pierce your other hand as well. Each pendant joint seems to reach out for the passerby and the ground beneath the broad cholla tree is strewn with fallen fragments, many of which take root and grow. After one has felt the sharp spines through heavy boots and seen their needle points, it is a source of continual wonder to see the wild cattle of Arizona quietly browsing in chollas. During the years of drouth thousands of cattle carry themselves over until the next grass by eating chollas. With their leathery tongues and lips they strip the spiny joints from the trunk and leave the wide-spreading cactus a bare and woody skeleton.

Gormandizing at Sea.

(Menu of the New Cunard Liner.) Before Breakfast—Tea, coffee, chocolate, grapes, pears, melons, biscuits, bread and butter. Breakfast—Everything customary, finishing up with hot cakes and syrups.

11 A. M.—Pint cups of bouillon; biscuits.

12 Noon—Sandwiches of all sorts carried about the decks.

1 P. M.—Lunch. Items that did not appear at breakfast, and some more.

3 P. M.—Trays of ices, biscuits, cakes.

4 P. M.—Tea, coffee, chocolate, biscuits, bread and butter, toast, cakes.

5 or 6 P. M.—Dinner. A new creation, including oysters, whitebait, turtle soup, venison, hot-house fruit and stuffer delicacies.

8 P. M.—Supper. Broiled bones, sandwiches, fruit, tea or coffee, lemonade, etc.

HEALTH RESORT FALLACIES.

It is no infrequent thing says a writer in Journal of Outdoor Life, of Saranac Lake, N. Y., for physicians at health resorts to get letters with passages in them such as this: "The man has no money but is strong and fully able to work. He would like to get some light work out-of-doors and would even be willing to work for a time for his board." It is astonishing to see how sick a man can be and yet consider himself and be considered by others as "fully able to work." In some instances he has high fever and should be at rest in bed; but he and his friends think he could drive an express or delivery wagon or do some other "light" work. In most instances such light work is all that is necessary to insure for him long months of convalescence from a few weeks or even days of over-exertion.

There is no question but that every patient is better off, no matter how slightly his lung may be affected, if he can by any means whatsoever avoid working for the first two or three months spent at a health resort. It is a curious thing, but when a patient does this, in the majority of cases some avenue seems to open by which he can obtain sufficient means to enable him to remain idle a sufficient length of time to insure a restoration to a certain amount of health. The darkest time is usually just before dawn and this seems to be true of the obscurity which overhangs many invalids.

Another point which many seem to forget is the fact that easy positions in all health resorts are quickly filled by those who are on the ground. It is no exaggeration to say that in the average health resort there are ten applicants for every position. A new comer thinks, of course, he has little or no trouble. He readily imagines that all people in health resorts are ill and much worse than himself and that he alone is able to work. He little realizes that there are many already at the health resort who have been there years and have been trying to get a good, suitable position, and have been unable to do so.

Where Titles Cause Trouble.

Some dollars and much gratitude will be the portion of that writer who produces a standard brochure on how to properly address exalted persons from foreign lands as well as native officials and dignitaries. Even men supposed to be well-informed frequently are embarrassed because they do not know the correct procedure.

In Washington there are half a dozen different rules covering this matter, and much confusion. Present usage makes it correct to address the Chief Executive as "Mr. President." All the Cabinet officers are called "Mr. Secretary," "Mr. Attorney General," or "Mr. Postmaster General," and the same holds true in regard to the Justices of the Supreme Court and the heads of the two legislative bodies.

Officially, the Ambassadors and Ministers are dubbed plain "Mr. Ambassador," or "Mr. Minister," though a few individuals who like high-sounding appellations insist that "Your Excellency" is a more elegant and polite method of addressing the venerable members of the corps.

When foreign princes visit this land of freedom the State Department mail is swarmed with cries for help from Governors, Mayors of cities, and even from private individuals who would like to extend hospitalities. But the most amusing appeal came to the Secretary of State when the Archbishop of Canterbury and Mrs. Thomas Davidson were visiting this country. It emanated from a woman of Boston, who represented a powerful church association which wanted to honor the helpmate of the prelate. She asked specifically how she should word her invitation and just what women would say on being presented.

"Some of our ladies maintain," went on the letter, "that it would be correct to say 'Your Grace,' since she shares all her husband's honors. Others assert that it should be Mrs. Archbishop, while a number agree with me, that it will cover the entire premises to say 'I am honored to meet you, Madam Canterbury.'"

Negroes Using Cocaine.

The police of Jackson attribute the recent outbreak of crime in that city and vicinity to the increased use of cocaine by negroes. Until a year ago the drug was unknown among them. Its consumption has now reached dangerous proportions and its users have become idlers. They are indifferent to punishment.

The authorities are discussing a crusade against the sale of the drug, and it is probable that some drastic measures may be put in force to prevent its use among the negroes. The crusade will probably be run in connection with the war of vagrants now being waged by the Police Department.—New York World.

Passenger Coaches in England.

Third-class passenger coaches in England used to be coupled on next to the engine. The travelers came on for terrible treatment when any accident occurred. At times the engine was driven tender first, in which case frozen hands could be warmed at its smokestack. The passengers were packed, seventy of them, into a truck eighteen feet in length by seven and a half in width. There was no roof and not as a rule, proper protection at the sides.

At the beginning of 1904 telegraph lines in Spain had reached the following extensions: Overhead wires, 18,176 miles; underground cables, 66 miles; submarine cables, 2,044 miles. Public telephones installed by private companies numbered 15,903. The public lines directed by the government were 10 in number.