

## THE ARMY WITH WHICH JAPAN OPPOSES RUSSIA

The artillery of the Japanese Army is always considered to be the pick of the service. French and English officers who have had opportunity of

At the present time we possess only about a gram of the pure salts of radium. However great may be the care taken in such researches, small losses are inevitable, and serious losses have at times resulted from unforeseen accidents brought on by the disconcerting properties of radium. Research in all branches of experimental science—physics, chemistry, physiology, medicine—is impeded, and a whole evolution in science is retarded, by the lack of this precious and unique material, which can now be obtained only at

## TIGERS EAT RAILROAD MEN

Railway men in foreign lands often carry on their work under conditions that would appall their fellow workers at home, says the Wide World Magazine. On certain Central African railways, for instance, trains have



RUSSIAN TROOPS LEAVING FOR THE FRONT.

seeing the artillery at maneuvers are loud in their praises of the Japanese soldiers, and of the smartness of the way in which they carry out the various movements. They know how to handle their guns well and to serve them quickly. For some time past the Japanese have paid particular attention to increasing the efficiency of this branch of the service. The men are the tallest in the Army, their standard of height being five feet four inches, as against five feet three inches, the standard for the engineers and cavalry, and five feet two inches, the average of the infantry. The gunner's rate of pay is in like manner the highest in the whole Army, the gunner private getting six and one-half cents a day (about seven cents) to the five and one-half cents (six cents) drawn by their

great expense. We must look to individual initiative to come to the aid of science, as it has so often done in the past, and to facilitate and expedite by generous gifts the success of researches the influence of which may be far-reaching.—Mme. Curie, in the Century.

### A Strange War in Bosnia.

A singular war has been waged in Bosnia recently. Both sides to the controversy speak the same language—Croat—but they write it with different alphabets, the Catholics with Roman letters and those of the orthodox Greek church with Cyrillic. To simplify the task of the public teacher the Austrian government directed that the Latin alphabet alone be used in the schools. The innovation provoked a

frequently been charged by rhinoceroses and other large beasts; and an unhappy telegraph operator on the Uganda Railway, on returning to the station, found the stationmaster and staff barricaded in a hut, while two big lions patrolled the platform. He promptly wired down the line for instructions.

The edifice seen in the cut shown is rendered necessary by very similar conditions. It is a hut built for the pointsman at Walayar, a jungle station on the Madras Railway, and is intended to protect its occupant against the numerous tigers which frequent the vicinity.

These ferocious brutes have in the past manifested an unholly taste for railway men, and so it was found nec-

## A HOME-MADE BAROMETER

Here is a home-made barometer with which anybody can be his own-weather prophet. It is used largely in England, and its success in heralding the approach of storms is vouchsafed for. This is the way to make it:

Get a common glass pickle bottle and fill it with water to within about two inches of the top. Then place an empty salad oil flask mouth downward into the bottle. Nothing could be more simple. The water in the neck of the flask will rise or fall according to the state of the weather.

Should the water rise in the flask it is an indication of fine weather. When the water is entirely out of the flask one may well look for very wet weather, and when the water in the neck of the flask rises above the water in the bottle it indicates "set fair." A man who made some of these barometers for himself says:

"During the last summer I have had two of these water barometers beside a mercurial barometer such as is known to science, and have carefully compared them. I noted that when the mercurial barometer was cutting lively capers my water bottles were far more sedate and on the whole more reliable."

When the subject of these water barometers was brought to the atten-



tion of Mr. Emery, the local weather forecaster, he smiled and said:

"The principle of the mercurial barometer and your water barometer is the same. During the passage of an area of high pressure the water in the bottle will be pressed down by the weight of a column of atmosphere, and, of course, the water will be forced up into the neck of the flask. Contrarily, when your home-made barometer is in an area of low pressure the water in the bottle will rise and the water in the neck of the bottle will go down."

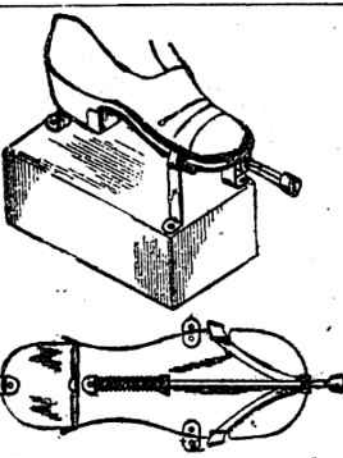
"However, it is nonsense to say that the water barometer could be more accurate than the mercurial. A mercurial barometer in good condition never cuts any capers. Moreover, a rising barometer does not always indicate fair weather nor a falling barometer a storm. The best we can say is that this will prove true in a majority of cases. I would doubt the accuracy of the readings of your water barometer, but it might make a good plaything."—New York Press.

### Travels of a Marked Lobster.

About three months ago a fisherman caught a large seed lobster marked H. A. K., which he put overboard in H. Jonesport Harbor. This was noted in the Jonesport Enterprise, with the request that any one catching this lobster would in turn report. On December 8 George Marshall caught the same shellfish near Mark Island, which as soon as punched by the inspector will be placed in Hatchery Harbor. This is interesting to those who are studying the habits and vagaries of the esculent crustacean, and guesses are in order as to when this specimen will next show up.—Portland Times.

## Shoe Clamps For Blacking Stand

At last an inventor has devoted his attention to the lately neglected blacking box, which, since the days of combination outfits, has been retired to oblivion. It seems a simple matter,



CLAMPS THE SHOE IN PLACE.

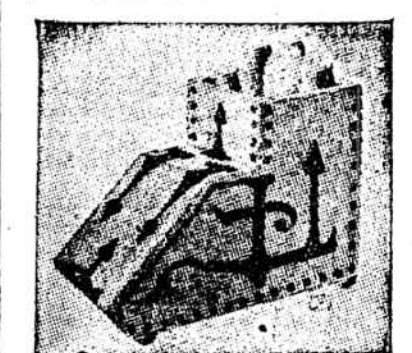


TIGER-PROOF HUT FOR SWITCHMEN, lying dire disarray among the staff and passengers.

Italy Neglects Navigation. The Venetian Deputy, Romain-Jacour, the other day delivered a lecture in which he deplored the fact that Italy, of all European countries, alone neglects its opportunities for river navigation. There are on the peninsula 3000 kilometers of navigable rivers, and by a network of canals these and the larger cities of Northern Italy could be easily connected with each other and with the ocean and the great lakes.

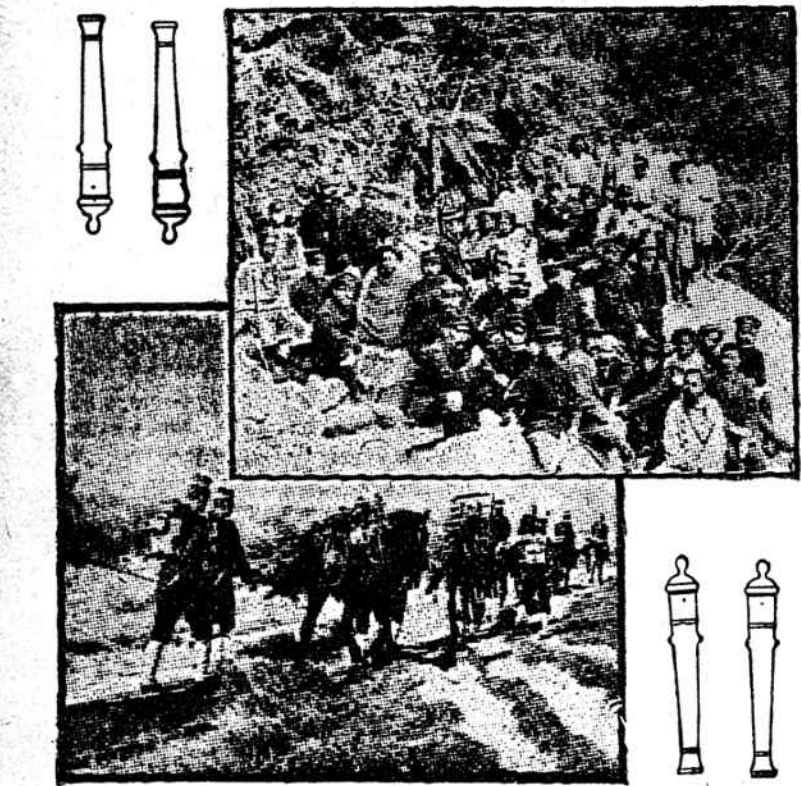
### A Useful Combination

An idea for a combination coal and wood holder is shown in the above illustration reproduced from the Woman's Home Companion. For economy of space this receptacle will be found especially desirable for a small room.



It measures fourteen inches wide and thirty inches long, making the interior of the log holder twelve inches square and eighteen inches deep. The coal hold is fourteen inches deep, and the lid pitches down so that at the front the box is but four inches deep.

## JAPANESE SOLDIERS IN THE MOUNTAINS.



JAPANESE ON THE MARCH.

which batteries are formed in eight regiments, divided between the imperial guards and the line. Altogether the entire force has some 326 field guns and half as many mountain guns. The field pieces are designed in Japan after a special pattern, and are made at the national arsenal and gun foundry at Osaka. They are very powerful weapons and can do good work at from 2500 to 3000 yards. The uniform of the gunner is much the same as that of the cavalry—dark blue tunics and breeches with yellow collars and facings, and brown boots. The greatest care is taken in the education of the officers of artillery. They are thoroughly well grounded in their work at that most flourishing institution, the Gunners School, of Tokio.

A New Explosive. The latest in explosives, according to Metal Industry, is powdered aluminum mixed with nitrate of ammonia and put upon the market under the name of "ammooal." This explosive is said to be one of the surest and safest known, as it cannot be exploded by friction or blow, while otherwise containing all requisites of an explosive.

The gambling receipts at Monte Carlo exceed those of last year by over \$600,000. It is the custom of the banks to give those who have lost their all free tickets that will take them home.

The accepted bid for the steel superstructure across the East River to Blackwell's Island was \$5,132,985.

## POPULAR SCIENCE

In the schools of France one child in four of both sexes is a N. 1 biter.

Horses, giraffes and ostriches have the largest eyes of land animals; cuttlefish of sea creatures.

Examination of the records of the characteristics of European royalty by Dr. Frederic Adams Wood, shows that the morally superior were the better endowed mentally.

Corn has been bred to show that by intelligent cultivation the parts of the kernel that yield the oil can be minimized, while those that produce protein can be developed.

A recent study of infant mortality in France shows that out of every 1000 deaths of infants under one year of age 116 are breast fed, 290 bottle fed, and 594 infants to whom solid food had been given too early.

The heat developed by the firing of heavy guns is remarkable. During some recent trials in Germany a gun that had been fired seventy-five times melted solder placed upon it, while another was not enough to soften lead.

Living bacteria was recently submitted to a temperature of liquid hydrogen, about 250 degrees centigrade, and about as near absolute zero as we can get, and after an immersion of ten hours there was no appreciable effect on the vitality of the organism.

### TELEGRAPHED WITHOUT BATTERIES

A "Wire" Sent 650 Miles by Electricity Taken From the Air.

The Northern Pacific telegraph department has telegraphed a distance of 650 miles without batteries.

Saturday night, when the aurora borealis display was on, the electric waves were noticed as early as 7 o'clock by Superintendent Dilline, of the system. They decided to experiment with the atmosphere as a current, and accordingly had the line opened from St. Paul to Dickinson, N. D., with the batteries along the line removed. The electricity was taken from the atmosphere during the disturbance, which lasted twenty hours.

Superintendent Green says: "We found that the electricity from the overcharged atmosphere registered from twenty-three millimeters positive back to the same figure negative. Pure green light shot forth at stated intervals, toward the earth, and each time it descended it charged the electric wires all over the country to such a degree that all communication was stopped for a time and disturbed for many hours."

"The electrical waves came with the regularity of the pendulum movement. They were of about three minutes' duration each, shifting from negative to positive polarities in almost perfect rhythm. Our instruments showed a maximum intensity of 370 volts."

"When the current was at its maximum positive polarity we could talk to Dickinson very easily by using the regular Morse alphabet. As the pendulum swung back to the negative polarity the sounds from the instruments would become fainter and fainter until the pressure came back. Our volt meter was not of high register, 300 volts being its limit."

"The disturbance commenced at 2 o'clock Saturday morning and lasted until midnight. It was one of the most remarkable atmospheric disturbances that has come to my knowledge for forty years."—New York World.

### The Hardiness of Trees.

An expert nurseryman says the hardiness or non-hardiness of trees depends largely upon where the seeds from which the trees in question sprang came from. Satisfactory results are seldom experienced by planting a seed obtained from the Sunny South, say. By planting seeds gradually further north, however, trees may be at length hardened and acclimated until a seed from such a tree may be reasonably expected to thrive and mature its fruits.

Trees, like people, acquire their habits from the climate in which they live. The Northern tree knows instinctively when the time has come to ripen its fruits. The Southern tree follows the same instinct, being in no hurry, as there is little likelihood of real cold. With transplanting further north its habit changes.

The great trouble with most people is that they want to jump a tree from South to North at one move. This same idea is evident in the attempt to bring various fruit trees from Russia to the Northern United States.

Apples and plums from the land of the Great White Bear have taken kindly to the below zero conditions of the gentle Dakotas.—Philadelphia Record.

### British Naval Increases.

There have been launched during the twelve months for the British navy thirty-five vessels, the collective displacement tonnage being 148,746 tons, while the indicated horsepower of the machinery aggregates 300,100. The vessels complete represent a cost of \$12,232,000. The previous twelve months made a "lean" year, so far as launches were concerned, the number of British warships being fifteen, of 92,054 tons displacement, with machinery of 185,000 indicated horsepower, the cost being about \$5,931,900. In 1901 the total number of vessels was thirty-two, while the total tonnage was 209,100 tons, and the cost about \$16,000,000 sterling.

### Tuft Hunter Outgeneraled.

The fondness that some people have for contact with notables is not always shared by the notables themselves. It is told by the late Baron Huddleston that he once tried to obtain a seat next to a duke at the table d'hôte in a hotel where both were guests. That this proximity to the great man might be brought about, the baron gave the waiter a sovereign. The servant proved a traitor, and an explanation being demanded, he confessed that the duke had given him two sovereigns not to give the baron the coveted seat.—Argonaut.

## THEATRE FIRE AFTERMATH

Thirty-three Theatres and Twenty Churches Closed in Chicago.

The Loss to Business Amounts to Over \$100,000 a Week—Over 5000 People Out of Employment.

Chicago, Ill.—With thirty-three theatres and twenty churches closed by the Building Department, Chicago is put down as the dullest town on record. People remained at home and intensified the wail from business men, stranded actors and transportation companies.

Some reports had it that the loss of business by department stores amounts to \$100,000 a week in some cases. Country patrons won't come to Chicago while there are no amusements. Matinee days always are big shopping days, and the loss to these is keenly felt. All branches of stage employes are circulating petitions calling upon the City Council to hasten the opening of the playhouses.

The act of closure has thrown 5000 persons out of employment. Of these 3000 are connected with the stage. It is asserted that 500 chorus girls are here out of employment. In the vaudeville, musical comedy and legitimate lines the number aggregates 1000. Stage hands, waiters and mechanics number 1500. Waiters, bill posters, clemen and bartenders laid off number 2000.

An indication of the far-reaching effect of the closure is shown in the action of the elevated roads and the Illinois Central taking off half their trains after 8 p. m. The restaurants in the Auditorium Annex and Victoria Pullman Building are closed after 8 p. m. Hector's and a few others are open, but without patrons.

Chorus girls have taken up work as nursemaids and domestics and many are behind counters in department stores.

Pawnshops are thriving. The stage people are the heaviest sufferers. No one knows when the playhouses will open. Public opinion is unanimous in demanding that the letter of the law shall be complied with.

Many theatres will never open. In others improvements requiring months will have to be made. Though the new laws have not yet been passed, the temper of the City Council shows the ordinances will be most stringent.

The remarkable change which has come over the night life of the town has been widely commented upon. Even the hold-up man has quit business. Philadelphia and St. Louis present night scenes of stirring activity in comparison with the present situation. The pressure upon the Council to pass an order opening the theatres under police and fire department control is enormous. "When they are allowed to open the upper balconies will remain closed."

One-third of the State street trade, according to one estimate, has been cut off by the closing of places of amusement, and local traction companies note a marked falling off in amount of traffic, due to the same cause.

A man interested in the Union Traction Company said that the receipts had fallen off \$1000 a night since the closing order went into effect. Members of the Union Loop Company estimated that the elevated roads had suffered an average daily loss in passengers of between 3000 and 4000, while the late spurbuses on the Illinois Central have been leaving the city with less than half the passengers they usually carry when the theatres are open.

### HOTTENTOT REVOLT GRAVE.

Settlers Are Being Murdered and Homesteads Burned.

Berlin, Germany.—Further advices from German Southwest Africa say the Hereros are murdering settlers and burning homesteads over wide areas. The German colonial troops in the disturbed district are wholly insufficient to deal with the rebellious natives.

Chancellor von Buelow submitted to Emperor William the dispatches received on the subject by the Government. It was decided to ask the Reichstag immediately to authorize the sending of reinforcements.

German marines have a keen desire for service in German Southwest Africa, as was indicated when the Second Division of Marines, 1000 strong, was drawn up at Wilhelmshaven. Volunteers for service in that colony were called for, and every man stepped forward.

### ROBBED THE DEAD.

Victim of Iroquois Fire Relieved of Money.

Chicago, Ill.—Charged with robbing the dead and dying at the Iroquois Theatre fire, three men have been placed under arrest by the Chicago police. The first of the alleged ghouls to be captured was Louis Witz, keeper of the Illinois saloon, located at Dearborn and Randolph streets, a few doors from the main entrance of the theatre. It is charged that Witz robbed the bodies of a dying woman, Mrs. E. J. Trask, the afternoon of the fire, securing \$199, which, it is alleged, was divided among three men, two of whom were arrested after Witz.

### Uruguayan Rebels Routed.

It is announced in a dispatch from Montevideo that the Uruguayan revolutionists have been defeated after a sanguinary battle at Illescas. General Saravia, the revolutionary leader in Uruguay, is reported to have been wounded in the leg in a fight at Mansavillaga.

### Canal Treaty Amended.

The Panama Canal treaty was amended by the Senate Committee on Foreign Relations, at Washington, D. C., so as to give the United States more jurisdiction over the harbors of Colon and Panama.

### Flood Drowns Thirty.

Thirty persons were drowned and three hotels and 176 houses destroyed as the result of the bursting of a reservoir at Bloemfontein. Hundreds of persons have been rendered homeless and destitute by the disaster.

### College and Educational Notes.

Amherst College students have formed a mountain-climbing club and have elected as its President Dr. Edward Hitchcock, dean of the faculty.

The catalogue of the Bowdoin College for the year 1903-1904 shows a total enrolment of 369, of which number 277 are in the academic department.

The reports of the President and Treasurer of Radcliffe College for the year 1902-03 show the number of students admitted to registration in the college during the year was 420, twenty-seven less than the preceding year.

## THE GREAT DESTROYER

SOME STARTLING FACTS ABOUT THE VICE OF INTEMPERANCE.

Poem: A Mocker—A Father's Tragic End, Which His Son Used as a Text For a Powerful Temperance Lesson—The Case of Liquor Stayed Away.

"Wine is a mocker," ah, God. It mocks at the widow's cries, Mocks at the children asking for bread, Mocks when the drunkard dies.

"Strong drink is raging." God help us. A raging lion, in truth, Seeking the men to slay them, From old age down to youth.

"Whoever is deceived thereby," Can it be, he "is not wise." God made him see the awful cure, And open his blinded eyes.

### The Lawyer's Story.

The young men had made great preparations for their fishing trip into the Indian Territory, and their disappointment was deep when, the very morning they were to start, the lawyer, whom they all liked, told them he could not go. To make the matter worse, his explanations were very lame and unsatisfactory; it was evident he had given up the trip for some reason which he hesitated to name.

As a last resort the others went in a body—six of them—to his office, and demanded that he tell them exactly why he had deserted, when he had been most enthusiastic in planning the outing. "If you're really to understand it," he said, "I shall have to begin with my own boyhood. My father, the best father I think that a boy ever had, always showed me a tenderness which even as a child I knew was somewhat different from the love which my playmates had from their parents. It was not until I was perhaps fourteen years old that he told me why this was so."

"Although he himself lived a most exemplary life his father, the father's father, and two of his uncles had been drunkards. The taste for liquor he believed to be hereditary in our family, and in me he had recognized many of the traits he himself possessed, and which had made his own life a long fight against the habit of drink. He pointed out the danger that lay before me, and begged me to give him my promise never, under any circumstances, to touch liquor."

"Of course I promised. He had never talked to me in that way before, and of course I took the matter as an imposition. I was frightened, and for several years I kept my promise. Then I went with some other young fellows on an all-day fishing trip. Along a case of whiskey followed one of our number, a boy whom we all admired, took a bottle of whiskey from his pocket, drank from it and passed it to his next neighbor. The bottle went round the circle, and each of us took a drink. I was following George Reitz's lead. When it came to me I tried to pass it on without drinking, but the others began to tease and ridicule me, until from sheer cowardice, I took the drink. "You poor—lost—boy!" he groaned, and these were his last words.

"Since that day, God helping me, I have never touched a drop of liquor. But I know myself to be weak, and I have exposed myself to temptation, and I never knowingly go where liquor is to be used. This morning, while the provision wagon was being loaded, I saw some of the men sent along with a case of whiskey. I gave me boys; I'm not preaching nor finding fault with you, but you see now why I can't go."

"You can go and you shall go," spoke up the judge, who had been observing the case of liquor. "For the whiskey is going to stay here." So the lawyer went, and a jollier, healthier, happier outing none of the men ever had.—Youth's Companion.

### The Winemonger Must Go.

The promise is made that the winemonger must go absolutely. The Journalist, merely hopes that this is a true that it is not merely a temporary stop of law enforcement to keep the "reform element" from complaining too loudly of the new administration of the law, but a permanent decree to temper. This is not a question of politics, but a deeper and more important question of the moral atmosphere of this community. The Journalist is a Republican newspaper and Mr. Holtzman is a Democrat, but in any earnest and persistent measures he may take for holding the liquor traffic within bounds, for wiping out winemongers where children are enticed to their ruin, and abolishing the dives that are festering sources of crime, he and his police administration shall have the hearty support of this paper.

There is no measuring the harm that is being done by failure to enforce the law in this particular. We have had in the Juvenile Court a number of examples of girls, mere children, induced by such monsters as Garrawold and Mettler to become habitues of dives and engage in a life that is worse than death. But this is not nearly all the story. In the neighborhood of every factory may be found a number of low doggeries that reap a rich harvest every pay day. In not a few of these gambling is carried on, and in more of them low women congregate. Workingmen from the factories flock to these places and play and one is lucky that gets out before spending his last dollar. It is not possible to abolish this class of saloons, but it is possible greatly to lessen the evil they do in robbing workingmen's families of their bread and compelling them to obedience to the law.—Indianapolis Journal.

### The Crusade in Brief.

Dr. Justin Edwards said that 10,000 drunkards who took the pledge had been permanently reformed in five years.

In Great Britain in 1901 there were 3000 deaths directly due to alcohol, while the deaths from tuberculosis numbered 58,000.

In Maine, Kansas and North Dakota they have prohibition by State law in thirty-eight other States they have it by local option.

The legislator who will vote to fasten the saloon system on the neck of an unwilling people should be preserved in his own alcohol and used as a sign in a saloon window.

According to statistics recently gathered, 30,000,000 are living in prohibition territory in this country. This is more than one-third of the entire population.

Henry Noble, a veteran of the Leavenworth (Kan.) Soldiers' Home, shot himself dead after spending his \$30 in pension money for drink at the joints in that city.

Dr. John Watson (Jan. MacLaren) recently preached a temperance sermon advocating that the keepers of drinking places in England be called upon to pay increased poor rates and police rates.

It is scarcely three years since the reform was inaugurated by the formation of a society of abstainers in Vienna, and now there are nine abstaining societies, two of them being societies of workingmen at Graz, Vienna and one at workmen at Glatz.