

Medicine and Surgery

How To Be Nice to Bluejackets Ashore

IN the course of an article on "Liberty Breaking" in "Our Navy" John D. Whitecar offers the following practical suggestions:

"If anybody wants to help the bluejacket ashore he can do so in a manner that will always be remembered favorably by the bluejacket. Let him fix up a place where a man can clean up after a night's ride on a train. At present if he desires to clean up he must engage a room at the nearest hotel, paying for a full day's use of the room. This amounts to a considerable item when a fellow draws but \$30 a month.

"As the majority of bluejackets come from inland states, it usually means a long train ride when they leave the ship on furlough. And a fellow does not want to arrive home looking as if he had helped the poor train fireman out. Then let him know where he can get shaved up without being told his hair is thin, full of dust or falling out. After his bath and shave watch him smile and reach down in his overshirt for his cigarettes.

"The facilities offered by the railroads are good as far as they go, but your real, honest-to-goodness saltwater sailor wants gangway when he takes a wash. And he wants a WASH. Not a canary bird's bath. He does not wet the tip of his fingers and gently touch his eyes. He sloughs into a bucket of water and WASHES.

"If you see a bluejacket travelling alone or even a couple of other fellows, just say to him, 'Will you join me in a cup of Java, young man?' and you will be surprised how he will start to become human and tell you all about it. You will also be pleased to note how many bluejackets desire coffee instead of liquor. If you know any one in the navy, ask the bluejacket if he ever ran across such a man; maybe he did. I once left a fellow in Shanghai, China, and met his father when I was on a train in Ohio. And maybe the father was not pleased when I gave him good news of his only boy. In your conversation with the sailor man, don't refer to him or other navy men as 'Jackies' (all the same monkeys), but say 'men', 'sailors', 'bluejackets' or 'you fellows.' Don't ask him why his trousers are so wide at the bottom—he does not know. All he knows is they cost him twice as much now as they did nine months ago."

"Researches have shown that the prevalence varies greatly. In some mining regions the death toll is high; in others it is scarcely above normal. In one mine it may be, perhaps, far in excess of that in another near by. In coal mines carbon dioxide, carbon monoxide, methane, sulphur dioxide and other gases have been alleged causes—and doubtless these gases have been fruitful sources of disease and death.

Intemperance and unsanitary conditions have likewise contributed to make a high death rate. Indeed, practically every one of the causes alleged in various mines and various localities may be said to have been substantiated. In the South African mines, where the underground work of drilling, collaring, blasting and shovelling is carried on in quartzite and other quartz-bearing rock, the initial cause of the disease is sharp-edged drill dust; and although the immediate and apparent cause of death may be an acute attack of pneumonia behind the pneumonia is an advanced stage of tuberculosis; and behind the tuberculosis is a pair of lungs raw and irritated because of the accumulation of millions of sharp-edged particles of quartz dust.

"The condition of the lungs, ingested and congested with quartz dust, is aptly termed silicosis. In the broad sense of the word silicosis might be called a disease, as well as a condition. The fine particles drawn through the bronchi and their ramifications during repeated inhalation finally insinuate themselves within the walls of the air vesicles of the lungs. The results are twofold: in the first place the accumulation of foreign matter prevents normal aeration; in the second place, the cutting and irritating action of the silicious particles brings about a fibrous growth which is nature's attempt to encyst them. This further reduces the power of aeration by diminishing the aerating surface. The advanced stages of silicosis are characterized by shortness of breath and labored breathing. A pair of lungs congested with silicious dust, raw and bloodshot, is ready to catch anything, and tuberculosis is just behind the bat."

For this reason, says "The Scientific American," American soldiers now in France literally "shovel" poisonous fumes out of their trenches. Attached to a shovel is a sort of canvas scoop or "flapper" which permits the men to heave the heavy gases over the parapets and to beat the fumes and dissipate them in the surrounding air.

A New Alibi for Dispatchers.

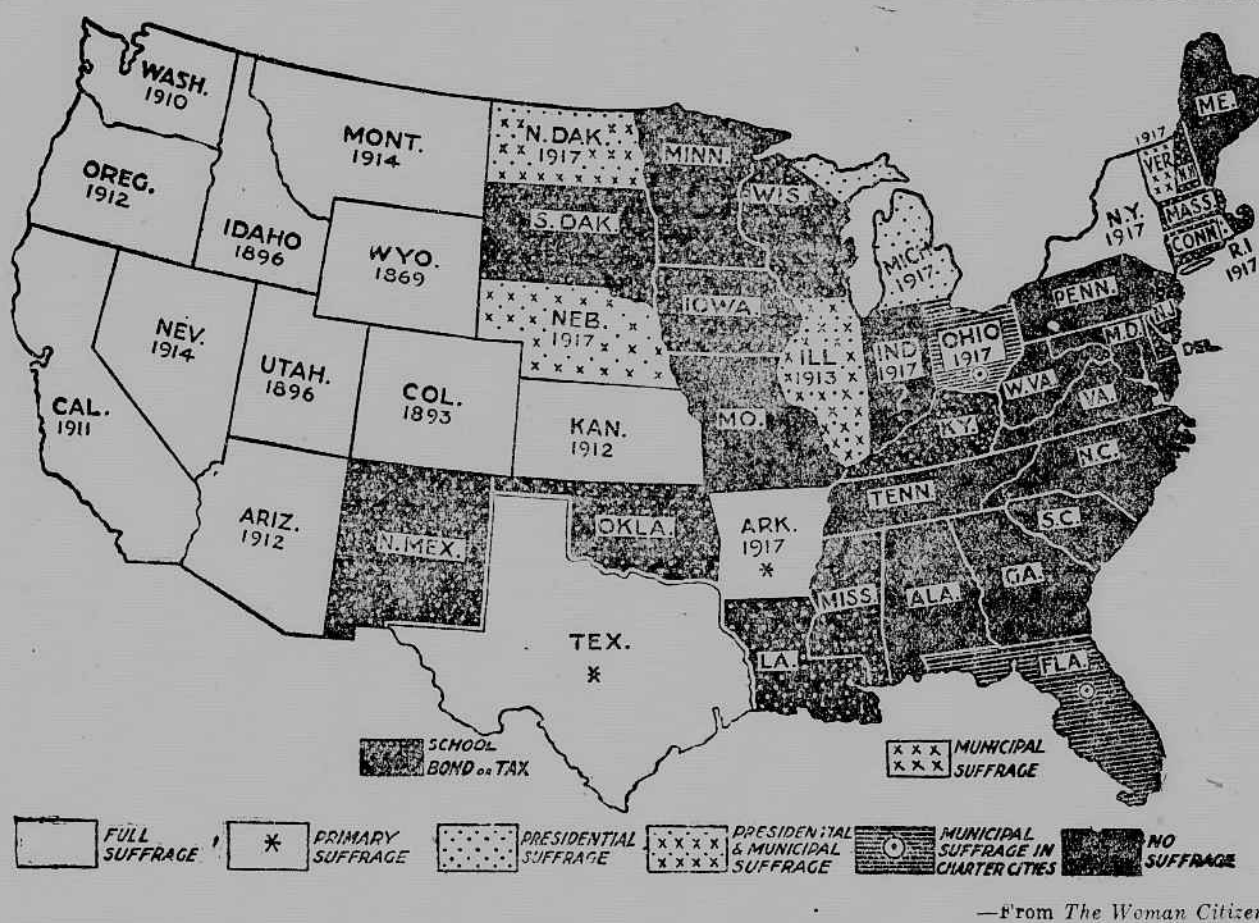
NO MORE will a railroad dispatcher need to seek an alibi if an order he gives miscarries, resulting in a wreck. According to "Popular Mechanics," the dispatcher for an electric railway in Missouri uses a dictaphone in connection with his work. With the mouthpiece of a dictaphone attached to the telephone transmitter the dispatcher is able to record his instruction by telephone to conductors at various points along the line.

"Lifting the receiver from the hook starts the dictaphone cylinder rotating. The records made in this way are dated and preserved for a time so that they may be referred to in case any dispute arises as to the character of the orders given."

If You Don't Smell All Right in a Beehive You're Kicked Out

ALL bees smell alike to average mortals, but Dr. N. E. McIndoo, whose book "Recognition Among Insects" has recently been published by the Smithsonian Institution, has trained his nose until he can recognize the three castes of bees—queens, drones and workers—merely by smelling them. He can also distinguish several other odors peculiar to bees and their hives. His experiments show that the bees themselves recognize one another by individual odors, and use the sense of smell for as many purposes as human beings use their eyes and ears. Worker bees returning to the hives from the field pass the guard unmolested, because they carry the proper sign, although the hive odor they carry is fainter than when they left the hive, and it is also partially masked by the odors from

A "Carry On" Map of Suffrage



—From The Woman Citizen

Industrial China

IN "The National Marine" appear the following interesting statistics:

"In China there are 6,435 miles of railway open to traffic; 2,340 miles are foreign owned and controlled; 3,680 are state owned, and 406 miles are owned by private companies; 1,620 miles of road are under construction, and loans are negotiated for but work is not yet commenced on 7,425 more miles.

"There are 25,000 factories that employ 400,000 men and 150,000 women. These factories are nearly all on the seaboard and do not include some hundreds of thousands of little home workshops that produce most of the materials for home consumption. There are thirty factories where aerated water is bottled; there are fifteen firms in the production of egg albumen for

export; 19 breweries; 12 canning plants, 15 cement and brick and tile factories, 19 clothing mills, 112 clothing spinning and weaving mills, 9 distilleries, 39 dock yards, 21 electric light and power plants, 57 flour mills, 24 glass and porcelain works, 42 vegetable oil mills, 18 paper mills, 56 printing and lithographing plants, 20 sawmills, 28 silk filatures, 12 smelting works, 70 soap and candle works, 10 tea factories and 28 tobacco factories."

Co-operative Delivery

A WRITER in "World's Work" notes:

"The removal of a million and a half men from industry for service in the army and navy has been responsible for a vast extension of co-operative delivery systems

throughout the farming sections of the West and in the smaller, and some of the larger, cities throughout the country. Here again the motor truck is used almost exclusively. Up to a recent time there were cooperative delivery systems in forty-seven cities of twenty states of the Union. One package delivery company in Boston handles between 7,500 and 10,000 packages a day, using about forty motor trucks for this purpose. Two large department stores in New York—Lord & Taylor and James McCreary & Co.—pool their deliveries in a separate delivery concern. The importance of cooperative deliveries in these days of war economy may be seen in the experience of Ottawa, in Kansas, a town of 7,700 population, which recently reduced the number of delivery trucks used by the merchants of the town from thirty-four to nine, and effected savings of from 25 to 70 per cent of their former delivery ex-

God and the Devil

The Church Is Fighting for Its Life

"THE war is not alone a military battle, but a moral and religious battle as well," says an editorial in "The San Francisco Chronicle."

"These Prussian standards of conscienceless materialism, brutality and immorality are the most revolting to the human conscience that have ever appeared among men. They must be trampled and destroyed in their inhumanity, and those who profess them must be discredited and undone for the sake of the world.

"If Prussianism should triumph in this war, then Christian standards are undone. If the Hun prevails the Church is smitten a deadly blow.

"Therefore, the Church is fighting for its life—the Catholic Church, the Presbyterian Church, the Baptist, the Methodist, the Episcopal and the Jewish churches—are all in a life and death struggle, which hangs upon the discomfiture of Germany."

Getting Away From the "Mere Semblance"

SO WELL is this situation being appreciated by religious leaders of all denominations that the Protestant Episcopal Bishop of Utah was called upon to explain his pacifism here before his spiritual peers last week, whose attitude was well expressed in his Easter address by the Rt. Rev. James De Wolf Perry, Jr., Bishop of Rhode Island:

"In a hundred military camps and naval stations, on the eve of war and on the battlefield, the sleeping dream of a host of men have wakened to new life. The discipline that gives a man control of all his members; the re-creation of his physical and moral fibre; the response of a man's whole being to the call of service—this is a return to life from the mere semblance of life.

"Still more apparent have the same forces been at work to vitalize the dormant spirit of a people. Human energies hitherto unknown have been set free; hidden resources without measure have been poured forth; households, communities, whole populations have risen from a living death with hearts aflame.

"Meanwhile, there is working through all the changing order a spiritual force as silent and invisible, yet inevitable as the return of spring. Beyond every other of God's mighty works is the rebirth of a people's soul. Only have the first signs of it appeared, reflected here and there on faces transfigured by suffering; voiced by the parent of one fallen soldier; 'I would not by a single selfish regret tarnish the splendor of his honor,' or again echoed in a letter from the front, 'The only enemies of Christianity are in the rear.' The army and navy have become schools in vigorous and elemental religion which will be long rekindle the faith of mankind.

"Central in this faith is a new conviction of eternal life. While multitudes of men are carrying on their cause across the lines of death, they are at the same time being redeemed vibrates with the measured tread of their unseen hosts. The cries of battle are caught up by their song of triumph. Death is swallowed up in victory. The voice of the risen Christ is heard as the shout of a King among them."

Victory? What Christians Have Petitioned For for Centuries

THE largest of the Evangelical churches has been so thoroughly imbued with the militant spirit of the day that it is not surprising to find the same note sounded in the "First Methodist," a little church paper of Wichita, Kan., in an article by Mrs. Henry J. Allen:

"To me this is a holy war, and our victory will be the victory for all that Christians have prayed for during the long centuries of struggle and suffering that have made the civilized world what it is. 'When we entered the war it was for the preservation of ideals and establishing of the brotherhood of man. All our institutions are founded upon this creed, and this is the essence of the teachings of Jesus. 'Victory for Germany would defeat the ideals which we have held dear; but with victory for America and the Allies, patriotism will be crushed and never more can nations become engaged in a reign of terror and slaughter, such as has been brought on by the autocratic German creed that 'might makes right.'"

"The Nation's Cross

MY LENT is over now, 'tis past and done,
My Easter with its risen Christ is come;
But, O my country! when will pass thy Lent?

Not till unnumbered precious lives are spent,
Not till thou know'st the heart's Gethsemane,
Not till on bended knee, in agony,
My country finds her God.

At His great trumpet call, at His behest,
My country gives her sons in Freedom's quest,
The sacrifice supreme. They know the Cross;
We, standing by, will reckon not the loss,
The heartbreak, and the pang, but only pray
God will send soon the world's great Easter Day.

—Sarah S. Pratt in The Living Church.

Hell's Livery

IT IS a travesty on the Christian religion for one to claim to be an heir of God while living an heir of Satan. What right has one to say he is on his way to heaven while travelling in the livery of hell? It may be true that a man on earth can travel East and reach the West, but a man can't travel the hell-road and reach heaven at the end.—The Western Recorder.

In the Great Workshop of Science

Shovelling Poisonous Gas Out of Trenches

WEIGHING considerably more than the atmosphere, the poisonous gases employed in modern warfare always seek lower levels. Thus the gas clouds penetrate trenches and deep dugouts, and in most cases it is a matter of many hours before they become sufficiently diluted with the atmosphere to permit of safe breathing. So the matter resolves itself into a problem of driving the poisonous fumes out of the trenches and underground shelters, or at least thinning them out until the air is again made safe.

For this reason, says "The Scientific American," American soldiers now in France literally "shovel" poisonous fumes out of their trenches. Attached to a shovel is a sort of canvas scoop or "flapper" which permits the men to heave the heavy gases over the parapets and to beat the fumes and dissipate them in the surrounding air.

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the nectar and pollen carried by these bees.—Popular Science Monthly.

Microphones

ENGLISH experts have so improved the use of the microphone on anti-

submarine vessels, says a writer in "The Electrical Experimenter," that they are able to steer accurately and automatically down on the submarine, while formerly they were unable to locate a vessel beneath the surface. The microphones are placed below the water close to the keel

of the vessel and answer the same purpose as the microphone of a telephone. By listening to the beat of the submarine's propeller the crew can determine the exact location of the enemy and attack him before he has the slightest idea of what is happening.

Catching Aviators by Electricity

"MORE frightfulness," comments the editor of "The London Aeroplane," in citing the following:

"The frontier correspondent of the 'Telegraaf' of Amsterdam, reports on February 27 that the Germans at Zebrugge have adopted a new method for catching hostile aviators. Toward evening they send up twenty captive balloons, without crews and attached to electrified steel cables. The electric barrier thus created is claimed to constitute a great danger to all aviators coming into contact with it. [What a wonderfully imitative person is the German!—Ed.]

The Germans, it is asserted, have also manufactured a new and improved type of aeroplane, fitted with three propellers, one being so arranged that it can keep the aeroplane for some time stationary above a certain point, thus permitting the bomb thrower to aim with greater accuracy. [Every perpetrator of crazy aeronautical ideas has invented this for the last nine years. Probably the yarn originated from some one seeing a three or four engine Riesenflugzeug.—Ed.]

The Narrow Gauge Behind the Lines

ALTHOUGH motor trucks and fine roadways played an important part in the successful French defence of Verdun, it must not be inferred that railways are not first in the problem of transportation just back of front lines.

Such is the case, according to Robert K. Tomlin, writing in "The Engineering News-Record." It was soon found that the number of motor trucks necessary to supply the front lines were down the roads so rapidly that the greater part of the motor trucks were soon required to repair their own damage to the roads!

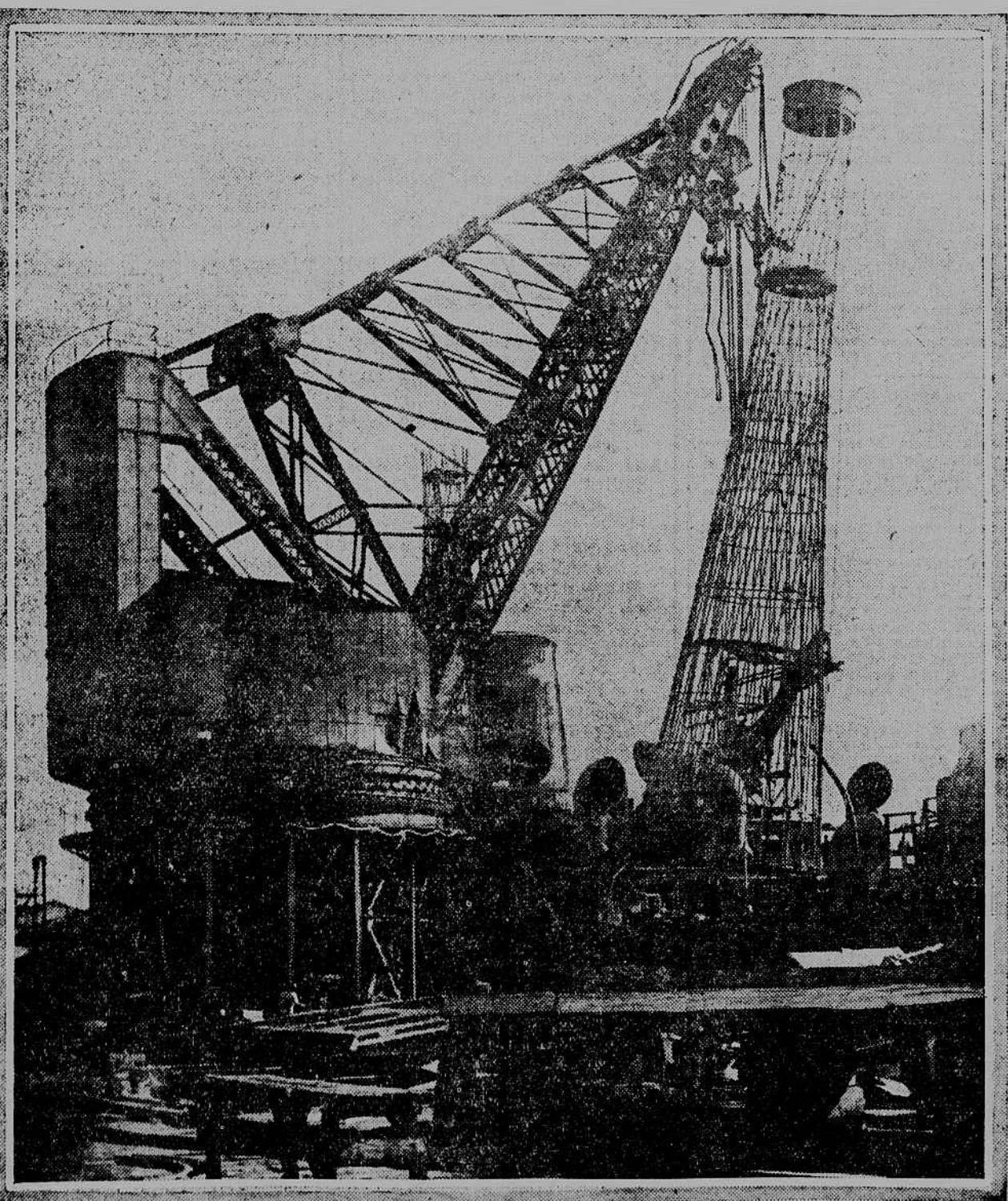
Hence the light gasoline locomotive is used on light railways near the front instead of steam locomotives, because it is more nearly noiseless.

Away With the Axe

THE day of the woodsman with the big axe will soon be over, judging from a new tree-felling machine described in "The Scientific American."

The new machine, a German invention, is run by a small motor. It will cut through a trunk thirty inches in diameter

"Hercules"



Underwood & Underwood, N. Y.

This great derrick, called "Hercules," is here seen lifting a steel mast at the plant of the New-Port News Shipbuilding and Dry Dock Company. It is said to be one of the largest electrically-operated revolving derricks in the world. The photograph, with others of a similar nature, appeared in "The National Marine."



in a couple of minutes. The saw is a chain affair with links of six teeth each, which are readily exchanged. It runs in a frame over four rollers with ball bearings. Its hollow handle is designed as a reservoir for oil.