

INVENTIONS THAT ARE WANTED

MANY IMPROVEMENTS AWAIT A DISCOVERER.

Artificial Rubber, Substitute for Leather and Artificial Glass Are Among the Needed Articles.

How infinite in faculty is man, said Hamlet.

Accepting this rather flattering view of him one is tempted to imagine that within the next few centuries he will have solved many problems which now seem well-nigh hopeless.

He may discover a means for communicating and exchanging news with other planets—if perchance any of them are inhabited. Think how interesting it would be to pick up one's morning paper and read of the latest happenings on Mars or Venus.

Such an achievement would not be so very much more wonderful than "wireless." Might we not learn how to telegraph, or even telephone, to Venus along a light-ray?

Harness the Sun and Moon.

We ought surely to find out before long how to harness the sun. If we cannot do that, we may harness the moon by machinery that will utilize the power of the tides.

But, while we are waiting for these great things, there are many smaller ones that invite attention—inventions that are wanted, but which have thus far eluded the makers of new ideas.

An elastic glass that will not break easily—how about that? The ancients are said to have known how to make such glass; but, if they could, the art has been lost. A relatively in-frangible umbrella or wingless would be a great comfort.

Another thing badly needed is a fireproof paper (of asbestos or other material) that will take ink from a pen, and not alter. It is required for deeds and other valuable documents.

How about an artificial rubber? With it the situation is much the same. When Columbus arrived in the New World, he found the Indians playing games with bouncing balls, the material, as he ascertained, derived from a tree. Today, nearly 400 years later, we are unable successfully to imitate the stuff of which those balls were made.

Big Fortunes Await Inventors.

It is positively discouraging to consider the fact that big fortunes in money are waiting and all ready to be grabbed by lucky persons who, by chance or otherwise, may hit upon one new idea or another. Not a . . . epoch-making inventions have been attributable to pure accident.

A satisfactory substitute for leather. Who will supply it? Are we always to rely upon nature for the production of the raw material? Surely not. And yet, though inventors have busied themselves with the problem for many years, they have not the solution.

Who will invent a machine that can pick chickens? Where is the genius who will contrive a mechanical oyster-shucker? How shall we find a pen-knife sharpener that does the work, and which any man can keep on his desk? What about an envelope suitable for mailing small articles or samples?

Among other inventions wanted are: A wall-papering machine. A scrubbing machine.

A capidator that will not spill when upset.

An envelope that cannot be opened without detection.

A contrivance to receive mail-sacks from moving trains.

A substitute for twine, for tying bundles of mailed letters.

A cure for seasickness.

A really practical car fender.

A means for securing window panes without putty.

A street car register independent of the employee.

A method of cleaning a ship's bottom without docking.

A NORWAY WATCH BOY

Who Gives Warning When a School of Fish Appears in Fjord

It is no uncommon sight to see a boy watching cattle in order that they may not stray, or keeping birds off the crops. A watch boy whose duty it is to keep a lookout for a school of fish and who sits in a sentry box set upon stilts is characteristic of Norway.

The scene of this lad's labors is the shore of some Norwegian fjord. His little sentry box is made of wood and is perched high upon posts. Here the boy sits, gazing out across the arm of the sea, employing his keen eyesight for the benefit of the farmers, who depend upon him to give the alarm when a school of fish shall appear.

They work contentedly enough in their fields, confident that the lad will let them know when it is time to reap a harvest from the sea instead of from the land. When the signal is sounded the farmers leave their work, throw their big nets over their shoulders and hurry off to their boats.

Sentry boxes similar to those employed in Norway were in use among the fishermen on the shores of the Mediterranean, and it is supposed that the Vikings brought back with them from some of their piratical raids the idea that has been in practice ever since.

MANNERS AT NAVAL MESS

INEXORABLE LAWS, WRITTEN AND UNWRITTEN

Despite the War, There is Little Change in Naval Dining Customs on British Warships.

Nothing puzzles a new-comer so much as the customs of the senior Service. There are laws, written and unwritten, which are inexorable. Voe beside the culprit who innocently breaks any of them. The etiquette of a military mess is not in the least the same as that around which a naval officers' mess is conducted.

The first thing a colonel who came aboard my ship the other day asked me was whether he was supposed to stay all through the dinner, as he had to get away early, says a naval officer. I told him what he might do in that connection, and incidentally mentioned a few other customs, at which he was amazed. I told him, for instance, that it would be as well if he refrained from inquiring after my wife—or any other lady—at table, at any rate until after the King's health had been drunk; that, also until after the King's health had been drunk, it would never do to make a wager or leave the table without the express permission of the president.

Drinking Toasts in Water.

My friend the colonel was much surprised to find that a dinner in a naval officers' mess even in wartime, is a very formal affair. The president—a senior officer—sits at the head of the table, with a vice-president opposite. Punctually to time he raps the table with his polished hammer and says very informally, "For what we are about to receive, thank God," whereupon the dozens of orderlies—generally Marines—who have been waiting for the signal, hand round the dishes, the president, of course, being served first, and the vice-president next.

Officers nowadays are rationed, but there is, comparatively speaking, plenty, and three courses are the minimum (a second helping, however, is permitted from the same dish). Sugar, too, abounds. An important item for some of us!

The King's health is drunk before dessert, after the grace. "For what we've received, thank God." Then the table is cleared, all tumbler—even if full—being removed, too.

Desert glasses having been served, three, sometimes four, bottles of wine are placed in front of the president. Around each is a silver label—say, Madeira, port, sherry, marsala. The president starts the ball rolling, first by methodically removing the stopper of each bottle and laying them in order side by side. Then he slides the bottles around with the sun—i. e., from right to left. Not everybody, of course, helps himself from these decanters, it being permissible by order of the King to drink the Royal toast with water, or an empty glass. On the last ship I was in practically everybody drank the toast in wine; on my present ship hardly anybody does. When the bottles, having gone the round, reach the president again he helps himself, and, having carefully replaced the stoppers, lifts his glass and looks towards his vice.

Quaint Superstitions.

"Mr. Vice—the King!" he gives; whereupon the vice-president says most solemnly: "Gentlemen, the King!" and the toast is acclaimed with "The King! God bless him!" everybody remaining seated. If the ship's band is in attendance the signal for the toast is the moment for the rendering of the National Anthem, when, of course, the toast is drunk standing—as on guest nights.

There is usually a general exodus from the table after grace—before the dessert is served. Those who remain fill up the seats nearer the president, so that the toast and after-dinner party is compact and jolly. Dessert and

coffee are then served. Should an officer not desire to take dessert, he signifies this by crossing his knife and fork on his dessert-plate or finger-bowl.

I had a puzzling experience at dinner the other night. I accidentally touched my glass with my fork. As the tumbler resounded, three voices spontaneously called out: "Hun—I asked what it meant, and found that when a tumbler rings, according to the belief of sailors, some misfortune is nigh."

"Every time somebody made the glass ring on the ship I used to command," an officer told me, "a seaman sure enough fell overboard." That was why they called out "Hun!" In doing so they were transferring the bad luck to our enemies! Usually somebody calls out "Save a poor sailor!" and the ringing of the glass, plate or bowl, is at once stopped by placing a finger on it.

Nowadays so many novices abound in the Navy that many of the old and revered customs are falling into decay, if they are not actually taboo. The "pukka" sailor regrets this, and is inclined to look forward to the time when the old customs will come into their own again. Speaking as one of the novices, however, let me say that most of those I have met have easily fallen into the "ways of the many," although some of us believe it could very well do without a few of the curious ceremonies, which apparently are kept up out of sheer devilry.

Drastring Treatment.

For instance, if a man happened to so far forget himself as to take from a dish passed to him by a fellow-officer, instead of taking the dish first from the officer, he is said to be "doing a Marine," and the penalty for this—at any rate, in the gun-room mess—is the dish is upset over his head. What if it happened to be hot potatoes!

Nowadays I notice officers arriving late for dinner, forgetting to apologise to the president. This is a point which in normal times would be considered a grave breach of etiquette. In large messes, such as that at Portsmouth or Chatham, a side-table is laid for late-comers.

Of course, everybody has heard of the toast that is made on Saturday nights at sea. After the King's health has been duly drunk, the wine is once more passed round for the pleasing toast, "Sweethearts and Wives." The cynic has added the tag, "May they never meet!" But the toast—a happy one—really is: "To our sweethearts and wives! May our sweethearts soon become our wives, and our wives remain our sweethearts!"

"CUTHBERT" IN FRANCE.

Thousands of Chinese Coolies Are Employed Behind the Lines.

Why an anti-aircraft gun is "Archibald," or, in familiar diminutive, "Archie," is one of the minor mysteries of the great war. A kindred puzzle is how every Chinese coolie has become "Cuthbert," but so it is. Many thousand coolies, provided by the Chinese labor companies, are at work behind the lines in France and are rendering admirable service.

Physically, they are of a far finer type of Chinese than we commonly encounter in Canada: lithe, quick, supple and tall—often well over six feet—and enormously strong. In loading a train with heavy army blankets done up in sausage rolls, they easily did one hundred and twenty to every ninety achieved by European workers, and at high pressure ran the count to one hundred and fifty. They are not fighting men, and their contract requires that they shall be employed only at a stipulated distance behind the battle line: but they are courageous and treat with indifference the occasional enemy shells that come their way. They are gay and glib, and cheerful under any discomfort, and extremely fond of music. They sing as they work—strange Eastern songs, often discordant to Western ears—and have appointed song leaders. To the rhythm of these songs they set their labor, and carry it forward with a swing, much as our old-time sailors were wont to do under the head of a deep-voiced cheery song leader.

One song leader, nicknamed Tommy, says an English correspondent, is one of the cheeriest and ugliest men imaginable. "The other day he tumbled off a roof on to a pile of timber. We thought he must be killed, but he wasn't, although the timber were running down his cheeks when we picked him up. A passing doctor looked him over and reported, 'No bones broken, but very badly wrenched and bruised.' When the verdict was translated to Tommy, he smiled and said: "Me restee two day, then me workee."

"It took much longer than that, but the spirit was ready earlier than the flesh."

"Cuthbert" has two other marked tastes besides music: dress and like most Orientals—gambling. On his off days he becomes elaborate in his attire and employs a whole battery of toilet accessories in getting himself up. Singing is popular as a recreation as well as an accompaniment to toil, but he is also immensely fond of phonographs. Sometimes they render classics, sometimes the records are Chinese; and the frequent transition from nerve-trying sounds to the voice of some great prima donna is startling indeed.

During one such period of enjoyment a group of Chinese, dressed in their best, were playing fan-tan and listening to a favorite record when an inopportune shell abruptly dispersed

THE GERMAN ARE SINKING IRISH SHIPS & MURDERING IRISHMEN.

JOIN US & AVENGE THESE CRIMES

Irish Avengers—Recruits for the British navy who volunteered as the result of the circulation of this poster throughout Ireland.

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the party, scattering the men in all directions, wounding several and tossing the photograph, unfurled, to the top of a steep bank. An officer who ran up was reassured by a smiling coolie, stripped of everything except a shoe and a few rags by the explosion and clapping a wounded hand.

"All lit!" said "Cuthbert" cheerily. "Cio' gone, cashee gone, lit' finger gone—nem min'. Gotee moosic. All lit!"

JERUSALEM

Described By a Correspondent of the British Army

"Jerusalem, says a correspondent of the British Army, is still, as the Psalmist describes it, a city that is compact together. Though it spreads untidily outside the Crusader's walls, it is a small place, and can be taken in a glance from the Mount of Olives or Mount Zion. Outwardly the city has changed little during the years of war. There has been a little widening of parts of the Jaffa road, and there are trenches and emplacements on the Mount of Olives and Mount Scopus, where invading armies in former ages have been encamped. But there is a striking change in the character of the place and the people that throng its narrow ways. The city within the walls is still a religious preserve, screened off from the common world, and into which the soldier can enter only if he has a special pass. But without the walls the soldiers have taken possession of nearly all the places where the various religious bodies had their abode.

Along the Jaffa road tea-pots invite our soldiers with signboards in strange English to partake of tea, cakes and sweets. Just outside the Jaffa Gate, a primitive place of entertainment is produced by the troupe of a division that boasts professional talent from the neighborhood of Drury Lane in one of its battalions, and a cinematograph booth, which before the war had a precarious existence, has now a nightly crowd of patrons."

THE GOLDEN AGE IN TURKEY

Describing Commercial Conditions in Asia Minor a Century Ago

With all his faults, the Turk is, or was, before he came much in contact with the more commercial civilization of the West—singularly honest and in the best sense of the word simple-minded. In a Quarterly Review article, Mr. W. M. Ramsay gives an idyllic picture of trade conditions in Asia Minor as they existed a century ago.

With regard to the simple ways of Anatolian trade, he says, I give one example: An English friend, an experienced and successful business man in the inner part of Turkey, used to relate what he had heard during a visit to Trebizond more than sixty years ago. Until a few years before he was there, and within the experience of many of business associates, the custom had been that goods for sale in Central Asia were entrusted to native traders, who went in charge of caravans of camels laden with merchandise. A trading journey lasted from a year to eighteen months. On their return these native traders entered Trebizond early in the morning having bivouacked for the last time some little distance outside the city. As they passed along the street they deposited at the door of each merchant for whom they had done business a bag containing the money that they owed him; and when the merchant arose he found the money waiting on his doorstep. Everyone was satisfied; there were no contracts, no accounts, only a reasonable profit. Most remarkable of all, there was never any theft of money from the doors until Maltese immigrants, who began to settle in Trebizond, introduced European "civilization."

In those days there were no large

fortunes; there was no opportunity to make them, for it was impossible for one man to force into his service a large number of persons and so to create a big organization out of which he might make big profits. A very large number of men did business on a small scale; all made a decent living and all were reasonably happy in a humble fashion.

YES! MAGICALLY!

CORNS LIFT OUT WITH FINGERS

You say to the drug store man, "Give me a small bottle of freezezone." This will cost very little but will positively remove every hard or soft corn or callus from one's feet.

A few drops of this new ether compound applied directly upon a tender, aching corn relieves the soreness instantly, and soon the entire corn or callus, root and all, dries up and can be lifted off with the fingers.

This new way to rid one's feet of corns was introduced by a Cincinnati man, who says that freezezone dries in a moment, and simply shrivels up the corn or callus without irritating the surrounding skin.

Don't let father die of infection or lockjaw from whitening at his corns, but clip this out and make him try it. If your druggist hasn't any freezezone tell him to order a small bottle from his wholesale drug house for you.

BLACK TEETH POPULAR.

Are Preferred to White Ones by the Natives of Tropical Wilds.

Dentists are learning that the wilderness is full of opportunities for wide and lucrative practice.

"Black teeth for human wear are in growing demand," said a dealer in dental supplies. "In some parts of the world they represent all that the unenlightened masses know about the benefits of modern dentistry."

"It is idle to contend that black teeth are contrary to nature and injurious to the character. When the people want black teeth they will get what they want. They will even be encouraged to want black teeth. It would be the same if they wanted green teeth or red teeth or teeth of any other color. Our civilization is strictly commercial."

Travelers have long noted the strange predilection of half civilized races for wearing black teeth. Natives of the Philippine Islands and most other islands of the Pacific, including the South Sea Islands, are addicted to the fad of black teeth, which they prefer to wear. Sometimes the natural teeth are dyed black with a dye produced from certain herbs and berries suitable for the purpose. But for the most part natives who can afford to do so have all their natural teeth extracted by a dentist and full sets of black ones substituted.

"Hence the great quantity of black teeth manufactured for export and the increasing number of dentists in the tropical wilds of southern countries."

Minard's Liniment Cures Garget in Cows

It is said "The Barber of Seville," Rossini's happiest effort took but thirteen days to compose. His "Semiramide" was his last production in Italy before going to France to live.

Curfew Bells Silenced in England.

The curfew tolls throughout England have been the subject of much prose and poetry. One of the best bits of verse inspired by the night bells of war reads:

No curfew tolls the knell of day;
Night silences all bells.
When dark descends no befling tells
The hours, no "Venite" swells
To summon those who pray.
For devils from ten thousand hells
Wait to be guided by the bells.

In silence still the hours steal by,
Wrapped in a hushing mystery.

Some day, who knows, the sound of chiming

Again will ring down the gloom
And deeper tones from 'Minster's boom

Where guns sound in these stricken times,
Some day, from every church and tower