

Science Siftings

By 'Volt'

The First Rock Tunnel.

The piercing of the Simplon leads Dr. Berthelot, of Basle University, to call attention to the earliest rock tunnel on record. Shiloah tunnel was bored by King Hezekiah, who reigned about 727 to 699 B.C., and its purpose was to permit the water of Mary's Spring to flow into the Pool of Siloam for the use of Jerusalem. Its present length is 580 yards, although a straight line between the two ends would measure only 363 yards. An inscription discovered in 1880 confirms the belief that the hewers with bronze picks began at both ends and met near the middle, and numerous abandoned galleries give an idea of the difficulty they had in keeping to their course. The tunnel is two to three feet wide, diminishing in height from 10 to 1½ feet, then rising again to 6 feet. Though the engineers deviated so much from a direct line, they followed the horizontal level with remarkable accuracy, the total variation being not more than a foot, and we may infer that the old Hebrews had some instrument akin to our spirit level.

Sounds of Fishes.

The life of fishes in the sea is not one of absolute silence, as is proven by the telephone of a Norwegian inventor. A microphone in a hermetically sealed steel box is lowered into the water, and the sounds transmitted are heard in an ordinary receiver in a boat or other place above the surface. When in large numbers herrings or other small fishes make a piping, whistling sound, cod being indicated by a roaring noise. When individual fishes are near the apparatus their movements may be heard, the pouring of water through the gills sounding like the labored breathing of a huge beast, and the action of the fins giving a rumble like the beating of surf on a beach. Even the crunching of teeth and rustling of scales may be distinguished.

A Tooth Destroyer.

The decay of teeth is not yet well understood, and recent evidence tends to show that bacteria play a less important part than has been supposed. A newly discovered substance in the saliva, belonging to the group of enzymes or unorganised ferments, proves to have the power of setting free acids from certain compounds. The saliva of persons troubled with rapid erosion of the teeth is found to have unusual acid-freeing power, and it is assumed that the new ferment is a leading agent in the destruction of teeth. The acids freed by this substance have a marked solvent effect on cement fillings.

Alcohol Light.

Wood alcohol is coming into quite general use for lighting in France and Germany, where it is as inexpensive as kerosene. The alcohol is led to a special burner by a wick, which does not require trimming, and with a small Welsbach mantle in a slender glass chimney a smokeless and steady light of 45 candle power is produced. This very brilliant light can be regulated perfectly, and is quite odorless.

The Chinese Language.

There are 382,000,000 Chinese speaking the same language, making Chinese the most spoken language. There are so many dialects which are entirely different that they seem scarcely to belong to the same tongue. The inhabitants of Mongolia and Thibet can barely understand the dialect of the people in Pekin. Putting Chinese aside, the most spoken languages are as follow, in millions:—English, 120; German, 70; Russian, 68; Spanish, 41; Portuguese, 32.

The First Alphabet.

The first alphabet of which we have any account is the Phoenician, which consisted of 16 letters, but when transplanted into Greece it had 21 letters, if not 22. In the Phoenician language the writing proceeded from right to left. The Greeks, on borrowing the Phoenician alphabet, also wrote for some time from right to left. The mode of writing alternately from right to left and from left to right was then introduced, and finally the direction from left to right prevailed throughout the West to the exclusion of all other modes.

What turned the microbe out of home
And drove him far o'er earth to roam,
Of all his race the last!
What harries him from day to day,
And drives those colds and coughs away,
He manufactures fast?
Ancestral spirits cry "en masse,"
WOODS' GREAT PEPPERMINT CURE, alas

The Home

By Maureen

Furniture Polish.

When polishing furniture add a little vinegar to the polish, this will get rid of the dead, oily look so often noticed after cleaning.

Lamp-wicks.

Lamp-wicks soaked in vinegar some 24 hours before being used will give a clearer flame and a steadier light than those not so treated.

Mixing Mustard.

When mixing mustard add a saltspoonful of salt and the same quantity of moist sugar, and mix with boiling water. It will be found to keep moist much longer, and have a better taste.

Boiling Eggs.

Though not generally known, it is nevertheless a fact that eggs covered with boiling water and allowed to stand for five minutes are far more nourishing and much more easily digested than eggs which have been placed in boiling water, and allowed to boil furiously for three or four minutes.

Testing Eggs.

Drop the eggs in a deep dish of water, and if the small ends come to the top they are fresh.

Preventing Rust.

To prevent rust on articles of polished steel, apply the following mixture with a sponge: Add one part of oil varnish to 4 of rectified spirits of turpentine. Mix well and keep corked.

To Remove Rust from Steel.

Cover the steel with sweet oil, rub it well in, and in 48 hours use unsalted lime finely powdered, and rub until all rust disappears.

Foreign Substance in the Ear.

If an insect of any description gets into the ear, fill it with either a teaspoonful of warm water or sweet oil. This will have a tendency to float the foreign substance out of the ear.

Remedy for Burns.

Equal quantities of lime water and sweet oil beaten up together make an excellent remedy for burns. A bottle ready mixed should always be kept in the house for immediate use.

A Good Sprain Cure.

The white of an egg thickened with flour stiff enough to handle, then thin down with turpentine and add 1 teaspoonful of salt, thin it so that it will spread, and make just enough for one plaster. Three plasters generally make a cure. Use fresh ones every time. Hot water is also good for sprains.

A Dry Mustard Plaster.

Procure a sheet of white wadding, and cut a square of 8 inches from it, spread out flat, and on the soft fluffy side sprinkle dry mustard thickly. Then cut out of a piece of thin soft muslin or cambric two squares large enough to cover the wadding, place it between the muslin, and stitch edges together, tacking loosely in the centre to keep the wadding smooth and flat. This form of plaster can be applied with comfort to any part of the body where it is necessary to apply mustard, and gives great relief in cases of severe cold in the chest, etc., without the usual blistering effect of mustard applied in the ordinary way.

Bleeding From the Nose.

Bleeding from the nose may be stopped by snuffing lemon juice into the nostril from which the blood issues. It has long been known to physicians that lemon juice is a most powerful styptic.

Maureen

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