

Scientific.

SWIMMING APPARATUS.

Frederick Barnett, of Paris, has just patented a novel yet simple apparatus for swimmers. The invention consists of supplying to man an imitation of the apparatus peculiar to the frog. For the hands, he has a large membranous fin, which is held to its place by loops passing over the fingers, and a strap around the wrist. The surface presented to the water by these fins is so large as to add greatly to the effectiness of the arm, but not so large as to exhaust the muscular power. Their effect is to very much reduce the effort usually required in swimming. But the greatest ingenuity is displayed in the forms and fitness of the fins for the legs, which are attached to the ankles, and are so formed that they act upon the water, both in the movement of bringing the legs and throwing them back. They act so finely in treading water, as swimmers call it, that one can walk, if not on the water, at least in it. The difference between swimming with this apparatus and without it is very much like the difference of rowing a boat with the handle and the blade of an oar. The old swimmer has no trouble in using the fins at first trial, and is surprised to find with what strength he can swim without exhaustion. He easily swims twice as fast with the apparatus as without it; and with it he can sustain himself four hours upon the water, or swim many miles.—Journal of Chemistry.

THE THERMOMETER.—Thermometer is a Greek word, and means heat-measure. Perhaps all the young folks do not know the meaning of zero, that frosty word which they hear spoken of so often. Let us try to explain it of them.

Mr. Fahrenheit, who invented the kind of thermometer which is used in this country and in England, lived in a warmer climate than ours. He never breathed the keen air of a zero-cold morning. But he knew what the boys and girls who make ice cream know so well—that a mixture of snow and salt, or pounded ice and salt, is much colder than ice or snow alone. Indeed, he thought that such a mixture was so cold that there could not possibly be any heat in it at all. So he concluded that the temperature of this mixture would be a good starting point from which to mark off the scale of his thermometer. Putting the bulb into the snow and salt, he marked the point to which the mercury which fills the tube fell, 0 (cipher) zero, nothing; because, as before said, he thought the amount of heat was nothing. But had he lived in our cold New England, instead of Germany, he would have found perhaps in his sorrow, that our wintry air is often colder than his ice and salt. Then, if the air is even colder than this mixture, it follows that there must be some heat in the ice and salt to make it warmer than the air. So Mr. Fahrenheit was mistaken about his zero's expressing, as he intended it should, no heat. Indeed, chemists tell us that, by an experiment which they know how to perform, they can produce a degree of cold compared with which Fahrenheit's zero is quiet hot.

A LARGE BONE CAVE has been discovered in Bavaria by an excavation for a railroad. It contains a layer, three feet deep, of ashes, coal, broken pottery, splinters of flint, and the bones of a variety of animals, chiefly of bears, hyenas, and lions. Above the layer are traces of the presence of man, such as flints in great numbers, one of them toothed like a saw. There also exist remains of horses, oxen, cats, wolves, and the bones and scales of pike and carp. The fragments of pottery are very numerous, indicating a rude manufacture. There is a block of granite, with one smooth side, and two holes in the upper side, as if it was designed for a millstone. Several spindles made of clay have been discovered.

Meat is much better for family use when at least one week old, in cold weather. The English method for keeping meat for some time has great merit. Experts say, hang up a quarter of meat with the cut end up, being the reverse of the usual way, by the leg, and the juice will remain in the meat, and not run to the cut and dry up by evaporation. It is worth a trial, and when made will be continued.

What in life is more beautiful than happy human faces?

THE MOUSE TO THE LION.

"I am a little mouse, Only that— Chased about the house By the cat.

"But small as I am, Weak and shy, I have sharp little teeth And a very sharp eye.

"I can see when the great Are in pain; I can gnaw for a friend At a chain.

"Dear lion, you are kind, You are strong; But the day may arrive, Before long,

"When in vain you shall roar In a net; Then your small mouse friend Won't forget."

HOW TO COOK MEAT.—The Journal of Chemistry says the way to cook meat so as to make it most nutritious and most digestible, is to put it for five minutes in boiling water. This stops up the pores, and prevents the juices from escaping. Then add cold water, and keep it simmering at a temperature of 150 degrees until cooked. Salted meat, if to be eaten cold, should be allowed to cool in the water in which it has been boiled. In baking meat, the oven should be made as hot as possible at first, so as to close the pores quickly, and then allowed to cool a little, so that the cooking may go on more slowly. Roasted meat has a richer flavor than boiled, because certain aromatic principles are developed in that process, but it is less digestible and attended with more waste of the fatty substances in cooking. Stews and hashes made from fresh meat are pronounced more nutritious than those made from meat that has been cooked before, and salted meat is less nutritious than fresh, as it loses so much of its juices in the brine. Frying, as all dyspeptics know, is about the worst possible way of cooking meat. Broiling, when nicely done, gives a more digestible dish than roasting or frying.

A REMEDY FOR SMALL-POX.—The German Reformed Messenger is in receipt of a letter from a friend in China, in which it is stated that a Surgeon in the English Army, stationed there, has recently discovered an effectual cure for the small-pox.

The mode of treatment is as follows: When the fever is at its height, and just before the eruption appears, the chest is to be rubbed with Croton Oil and Tartaric Ointment. This causes the whole of the eruption to appear on that part of that body to the relief of the rest. It also secures a full and complete eruption, and thus prevents the disease from attacking the internal organs. This is said to be the established mode of treatment in the English Army in China, by general orders, and is regarded as a perfect success.

The London Lancet publishes an account of several cases of the small-pox and scarlet fever, in which the external application of carbolic acid met with marked success.

"INSECTS FIDDLING."—The chirping and singing of the cricket and grasshopper are frequently spoken of; but they do not sing—they fiddle. By rubbing wings and legs together—each in a manner peculiar to the species—these insects produce the sounds which characterize them. Perhaps our best insect instrumental performer is the "katydid." Each wing contains a little tambourine, and by the opening of the wings these are rubbed against each other, and produce sounds of "katy-did-she-did," which can be heard at such a long distance, and give the insect its name. These sounds are supposed to be useful in enabling insects to find their mates; or they may indulge in them for their own gratification, and to add to the general harmony of nature.

A CHEAP PAINT.—Take eleven pounds of unslacked lime and one gallon of boiling water, and stir into a thick pudding; then add to it two gallons of boiled linseed oil and one quarter of a pound of white potash dissolved in one pint of boiling water. Mix thoroughly, and if the oil and water do not unite, add a little more potash water, there must be enough to cut the oil perfectly but no more. It will look thicker than common paint, but will spread easily with a common paint brush, and will, wear excellently well, and has all the appearance of a superior paint, while its cost is less than half as much. For a paint for barns, out-ouses, fences, &c., it is unequalled.

TAX N. S., JANUARY 1, 1873.

MESSENGER ALMANAC.

JANUARY 1873.

First Quarter, Jan. 5 h. 5h. 13a. afternoon. Full Moon, " 13 h. 0h. 8m. noon. Last Quarter, " 21 h. 4h. 16m. noon. New Moon, " 28 h. 1h. 13m. afternoon.

Table with columns for Day, SUN, MOON, and High Tide. Rows list days of the month with corresponding times and positions.

THE TIDES.—The column of the Moon's

Southward gives the time of high water at Parrsboro', Cornwallis, Horton, Hantsport, Windsor, Newport, and Truro. High water at Pictou and Cape Tormentine, 2 hours and 11 minutes later than at Halifax. At Annapolis, St. John, N. B., and Portland Maine, 3 hours and 25 minutes later, and at St. John's, Newfoundland 20 minutes earlier, than at Halifax. At Charlottetown, 2 hours 56 minutes later. At Westport, 2 hours 54 minutes later. At Yarmouth, 2 hours 20 minutes later.

FOR THE LENGTH OF THE DAY.—Add 12 hours to the time of the sun's setting, and from the sum subtract the time of rising. FOR THE LENGTH OF THE NIGHT.—Subtract the time of the sun's setting from 12 hours, and to the remainder add the time of rising.

Joyful news for the Afflicted.

GATES' Life of Man Bitters.

After so much has been said and so much produced in proof of the worth and excellence of Gates' medicines there are, can there possibly be one, who will have the hardness to stand up in the blaze of the sun light and say they are no good, when so many hundreds who have experienced the benefit arising from their use, would come forward and shame those who would oppose such a boon to mankind and gladly and willingly raise their voices in extolling the virtues of these medicines, the healing properties of which have been tested by so many of the sons and daughters of suffering humanity. I can only say for my own part, may the day soon arrive when Gates' combined and valuable medicines shall have a broader and more extensive circulation over the universe, and while with the trowel in one hand and the sword in the other he is working for the good of his suffering fellow beings—May there come forth those who will stand like giants against those who would overthrow and sap the very foundation of the Life of Man to carry out the principles of the wicked one himself when he sought to dethrone the Great Monarch of heaven and take possession of the empire himself. Just so with those who would seek to bring into disrepute and destroy Gates' medicines. They have not had skill to compound themselves, and are envious at those who have.

I make these remarks because I have been attacked by those who carry out just such principles as I have above referred to, and probably I shall be again assailed by them when they see my statement of the blessings I have received from the use of these medicines in my family, or they will probably say they would all have recovered without them. I answer, No. But stand for truth and right.

But to those who have a sincere desire to ask are these medicines really a balm to heal the sick, to such I answer they are a balm, and in every way worthy of the name they bear, namely, Gates' Life of Man Bitters. HENRY W. MARSHALL.

Mr Caleb Gates.—Dear Sir—The Medicines I prepared from you, six months ago, while suffering with a severe pain in my left side, relieved me almost instantaneously, and at the same time effectually cured me of a distressing cough, which had troubled me for months, since taking your medicine I have not been troubled with either, and I feel bound to recommend it to the public as an infallible cure for the above named disease. Respectfully yours, B BAKER. Victoria Road, Wilmot, April 16, 1873.

PRICE. Bitters \$1 per quart; Syrup 50 cents per pint bottle; Liniment 20 cents per bottle and the ointment 30 cents per box. Address CALÉB GATES & CO., Farmington Wilmot, Annapolis Co. A large number of certificates, similar to the above, have been received and will be published at times for the information of the afflicted and the people generally. AGENTS.—George V. Rand, Wolfville. John Webb, Windsor. J. E. Newcomb, Hantsport. J. L. Cogswell, Kentville. Sheffield & Wickwire, Canning. GENERAL AGENT, JOHN K. BENT, 126 Granville Street, Halifax. Dec. 11. To Parents and Sabbath School Teachers. JUST PUBLISHED. SECOND EDITION—REVISED. A SCRIPTURE CATECHISM, for the Family, the Bible Class, and the Sabbath School, BY S. SELDEN. Price 8 cents or \$6.00 per 100.

MARGESON'S CALCULIFUGE.

This valuable Medicine is now before the public. Sure cure for the Gravel, Stone in the Bladder, and all diseases of the Kidney; in some cases it has cured the Dropsy—the worst or weakest case may use it; perfectly vegetable and in almost all cases it is a sure remedy. Try one bottle. Over 200 cases have been cured in Halifax. It is equally effectual with Cattle or Horses, if taken in large quantities. Directions for use will be found on the wrapper or label. Sold wholesale by Avery Brown & Co. R. C. MARGESON & CO., Halifax. Halifax, December 5th, 1872.

R. C. MARGESON & Co. Dear Sir—Having been affected with Gravel and finding that the doctors could do nothing for me, I was induced to buy your medicine called Calculifuge, I am happy to say after the second trial I was perfectly cured. R. commending it highly to any fellow sufferer with the same complaint. I remain, your humble servant, EDWIN F. CUTLER. R. C. MARGESON & Co. Dear Sir—I feel constrained to make you my acknowledgments for benefit received, as follows: My horse was suffering from suppression of the urinary organs and was, in consequence, suffering considerable pain; I was recommended to try your Calculifuge; I procured it and gave a strong dose, and am happy to say it had the desired effect in a complete cure. Yours, with regard, J. B. SMITHERS. Dec. 18.

Government House, Ottawa, MONDAY, 25th day of Nov., 1872.

PRESENT: HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL.

ON the recommendation of the Honorable the Minister of Customs, and under and in virtue of the authority conferred by the Act 31st Victoria, Chapter 9, intitled, "An Act respecting the Customs," His Excellency has been pleased to make the following Regulations: In addition to the Warehouse Ports mentioned in the 54th section of the Act passed during the session of the Parliament of Canada held in the 31st year of Her Majesty's reign, and intitled: "An Act respecting the Customs," and also in addition to the Ports named in the Lists sanctioned by subsequent orders in Council passed under the authority of the said Act, the following Port shall be, and it is hereby declared to be, included in the Lists of Warehousing Ports in the Dominion of Canada, viz.—The Port of Wallaceburg, in the Province of Ontario. W. A. HIMSWORD, Clerk, Privy Council. Dec. 11.

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GEORGE S. YATES. Halifax, N. S., April 24, 1871.



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