

Science and Art.

Advice About Teeth.

Dr. Hayes, an eminent surgeon-dentist residing in London, gives the following useful hints about the care of the teeth. They are simple, timely, and deserve attention:—

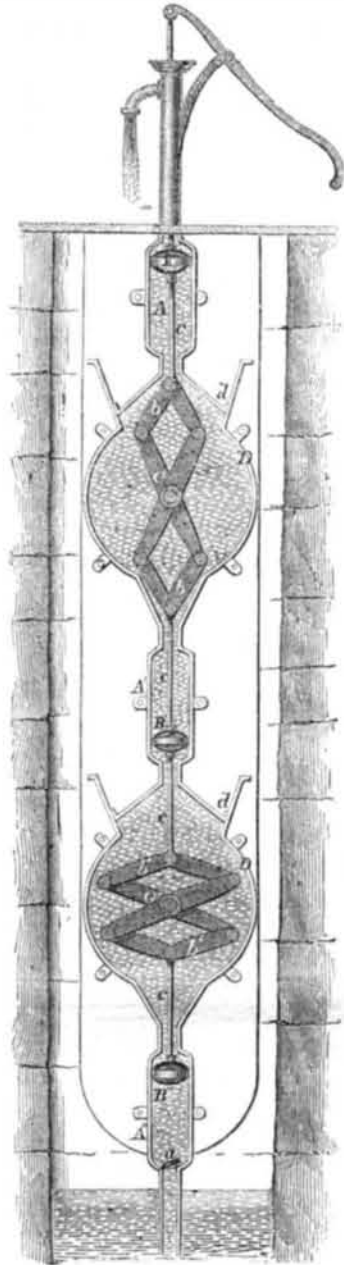
"In the first place, the teeth should be fairly used. By this I mean, not made to perform the duties of crackers for nuts, experimented on to ascertain their strength, or by ladies to rival scissors in cutting thread; for rest assured—in every case, more particularly the last—the party having recourse to such practices will surely some day rue them; the teeth so unwittingly injured being always the first to part company from their fellows. Those who indulge in such or similar habits may truly be called the dentist's friends. Cleanliness is absolutely essential for the preservation of the teeth, and they should be well brushed at least morning and evening, that any feculence which may be attached to them, either during sleep from the stomach, or by day from meals, may not be allowed permanently to adhere, causing, firstly, discoloration, then tartar, and subsequently, if I may so express myself, undermining the constitution of one or more, as from their position they may be more or less liable to corrosion. In order that the teeth should look natural—that is, retain their natural color—a dentifrice free from the smallest particle of acid should be used at the matin hour, and the mouth rinsed with tepid water, for extremes of heat and cold are most highly prejudicial not only to their color, but also to their durability; and I know no method so simple of converting a really useful and ornamental set into one of pain and subsequent extinction, than the use of washing in either one or the other. The person who habituates him or herself, to any extent, to hot soup, tea, or other drinks, assuredly rivals the friend to the dentist just named. Brushes for the teeth should be of medium substance of bristle, and those made on what is called the penetrating principle are best. I would also observe that children at an early age should be instructed in the use of the tooth-brush, and taught the value and importance of the teeth, in order to inculcate habits of cleanliness and a due appreciation of the ornaments of the mouth. A brush properly selected (not too hard) may be used by children of five years of age, every morning; and by being part and parcel of the general ablution, and thus directing habitual attention to the teeth, a useful and cleanly habit will be engendered which will probably ensure for them proper care through life."

De Yampert's Deep Well Pump.

By this arrangement of deep well pumps, the buckets or pistons are only loaded with half the volume of water at a movement of the brake or handle up or down, thus making the working very easy. The pump rod, *c*, passes through several cylinders, and is in separate pieces, each piece belonging to a cylinder, and being connected together by cross-rods, *C* and *C'*, moving on a center inside chambers, *D*, and link rods, *b* and *b'*; the whole pump and chambers should be attached to a timber attached to the sides or top of a well, and the distance between the pump cylinders, *A A' A''*, and the chambers, *D*, may be increased by piping according to the force which is attainable to work the pistons; our engraving only showing the principle of the invention. The pistons are seen at *B B' B''*, and each is provided with a common clack valve; a valve, *a*, being placed at the bottom of the lower cylinder. From *D* a sort of dish, *d*, rises at its junction with the cylinder, so that in case of any leak, a water joint is formed which prevents the water passing back into the well.

The operation is very simple. As the upper piston, *B*, is raised in the cylinder, *A*, it

lifts all the water above it out, at the same time drawing the water in the top chamber, *D*, after it, and at the same time through the rods, *b C*, depressing the piston, *B'*, in its cylinder, *A'*, so that the water can freely follow *B*. As *B'* is depressed, its rod, *c*, compresses the rods, *b'*, and *C'*, and thus elevates the lower piston, *B''*, in its cylinder, *A''*, and as the lower valve, *a*, is opened, and more



water from the well is drawn up. When *B* is depressed, it passes through the water in *A* by its clack valve being opened, and compressing the rods, *b C*, elevates the piston, *B'*, thus bringing up more water, and at the same time the opening of the cross-rods and links, *b'* and *C'*, depresses the piston, *B''*, and the weight of water closes *a*.

These pumps can be arranged for wells of any depth, and may be constructed of wood, with the cross-levers, *C* and *C'*, and links, *b b'*, pistons, *B B' B''*, and rods, *c*, of metal, and the cylinders lined with sheet brass, or entirely of metal, as may be desired.

A patent was obtained for this excellent device Sept. 11, 1855, by the inventor, T. J. De Yampert, of Honesdale, Pa., who may be addressed for information concerning rights, &c.; but for pumps, D. W. Church, of Honesdale, Pa., or Messrs. Downs & Co., Seneca Falls, N. Y., should be written to.

HOW TO MAKE A MORTAR IMPERVIOUS TO WET.—Provide a square trough, say 8 feet by 4 feet by 1 foot 4 inches: put a quantity of fresh lime in it; add water quickly. When the lime is well boiled, having assisted that operation by frequent stirring, add the tar (the heat of the boiling lime melts the tar), stir it well, taking care that every part of the lime is intimately mixed with the tar; then add sharp sand or crushed clinker, and stir well as before, after which, in about twenty hours, it will be fit for use.

Ivin's Hair-Crimper.

Why all the fashions should be French is a mystery to every one, and can only be accounted for upon the principle that Frenchmen have more taste than other people. This is a statement that we are not quite prepared to grant, and we are happy in being able to present an American invention relating to the decoration of the person. The object that is to be decorated is lovely woman, and the part to be adorned is the head, by dressing her golden or her raven tresses in the style we illustrate, and making her look, as Mr. Guppy would say, "gushing." The style is called crimping, and the manner in which it is performed is as follows:—

A fork, *A*, Fig. 1, is made by bending a piece of steel or other metal wire at the middle of its length, so that the fork is about four inches long and the prongs from three-eighths to five-eighths of an inch apart. A tress of hair is passed between the prongs of



the fork close to the bend, which is placed close to the head, and the tress is then laced round and between the prongs of the fork in the manner shown in Fig. 1, that is to say, over or under one prong, back between the prongs, and over or under the other and back between. The whole length of the tress may be laced in this way or only such portion as may be desired, after which the clasp, *B*, Fig. 2, or *C*, Fig. 3, is put on in such a manner as to clasp the hair in its lips, *a a*. To permit the clasp, *B*, to be put on, the prongs require to be pressed together to enable them to enter the lips, *a a*, but the clasp, *C*, by reason of its elastic center, can be stretched to make its lips, *a a*, slip over the prongs.

It was patented last week, and the claim will be found on another page. The inventor is E. Ivin, of 1,528 Frankford avenue, Philadelphia, and he will be happy to supply the crimpers or any further information.

Not Uncommon.

A correspondent, in a letter to us from Wooster, Ohio, says: "I have frequently invented articles, but have always thought them not worth getting patented. A number of them were afterwards invented and patented by other persons, and in more than one instance something handsome was realized." This is but a well-known experience, and furnishes a solution to the practice somewhat common, viz., that whenever an inventor, by patient toil, self-denial, and diligence, brings out a useful invention, there are scores who set up a claim to it, oftentimes with no other foundation for their pretensions than that the idea of such a thing may have once vaguely floated through their brains, but never wrought into tangible shape. Patents are not granted for ideas merely, and the attempts so frequently made to wrest, by legal process, the rights of a patentee of some good improvement by setting up such pretensions merely, are sure to end in disappointment to the second claimant. This experience of our correspondent should be a caution to all, not to procrastinate in bringing forward their inventions.

ENLARGEMENT OF THE "SCIENTIFIC AMERICAN."

Volume I., Number 1—New Series.

The Publishers of the SCIENTIFIC AMERICAN respectfully announce to their readers and the public generally, that, on the first day of July next (1859), their journal will be enlarged and otherwise greatly improved; and at that time will be commenced "Volume I., No. 1, New Series," which will afford a more suitable opportunity for the commencement of new subscriptions than is likely to occur again for many years.

The form of the journal will be somewhat changed from what it now is, so as to render it better adapted for binding and preservation; and instead of eight pages in each number as now, there will be sixteen and in a completed yearly volume the number of pages will be doubled to 322, or 416 more than now. By this change, also, there will be a large increase in the quantity of the reading matter: and it is the confident expectation of the publishers that they will be able to make it the most useful and instructive journal now issued from the American press.

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