

Protecting the Hands in Photographic Manipulations.

The British Journal of Photography says: Metal seems to be gaining, rightly or wrongly, an unenviable character for the injurious action it is said to exercise on the hands of its users. But, be it ever so hurtful, is there any reason why it should be allowed to exert its ill effects? In the development of negatives, only the extreme tips of the forefingers and thumbs need be wet with the solution, and then only the front portion of them, where the skin is the thickest. In most instances, in handling injurious chemicals, it is only when they come in contact with the thinner portions of the skin—as on the back or between the fingers—that any harm results. However, India rubber finger stalls, costing but a few pence each, are to be had at all rubber shops, that will perfectly protect the fingers from all pernicious materials. They are much more extensively used by photographers, both professional and amateur, on the Continent than they are here. Being exceedingly thin, they are by no means uncomfortable to work in. It is curious to note the effect that different chemicals have on different persons.

An Artificial Ice Rink.

A new skating rink at One Hundred and Seventh Street and Lexington Avenue, New York City, was opened December 14.

The interior of the new palace is dazzling. Ceiling and walls are hung with artificial icicles, illuminated by 2,000 electric lamps of various colors. There are two galleries, large enough to seat 5,000 spectators. Eighteen hundred persons can find room on the ice surface at one time.

The pond is frozen artificially, the cold being produced through the evaporation of anhydrous ammonia in coils of hollow copper tubes. The heat is abstracted from a brine solution surrounding these coils, the freezing point of which solution is lower than that of the water in the skating pond. Long rows of tubes filled with this frigid brine and communicating with the freezing apparatus lie below the surface of the ice and prevent its softening.

THE PUNNETT COMPANION SIDE SEATED BICYCLE.

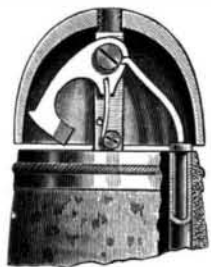
The bicycle has now reached a typical construction from which there seems to be slight tendency to deviate. Absolute novelties beyond the details are more and more rare. The companion side seated bicycle which we represent is, however, one of the novelties of the year. The tandem bicycle, which has met with considerable success where the desire is to have company on a ride, is more or less criticised on account of the position of the riders, one of whom must be behind the other. In the bicycle which we illustrate it is proposed to have the two riders seated side by side, as in the old-fashioned "sociable" tricycle, and yet to have the two riders carried by two wheels only. The two cuts are self-explanatory. The long axle of the rear wheel enables the use of two sprockets at its extremities so far apart as to permit of each one being acted upon through a separate pair of sprockets, each actuated by a separate rider. There is a triple head and a duplex frame, the latter carrying two saddles placed side by side at a proper distance apart for two riders to occupy also side by side.

It is said that a difference of 100 pounds weight in the two riders is not noticeable, and that a person who is ignorant of riding can be taken out on this wheel with perfect safety. The system of mounting is peculiar. For the first one who mounts, the wheel is inclined to one side and this rider takes his or her place on the lower saddle. The machine is then pulled back to an upright position and the second rider mounts by the pedal, and so the start is made. The dismount is made in the same way, reversing, of course, the operations. The two saddle posts are connected, it will be observed, by a crossbar. At the center of the crossbar is a special socket. When a single person is riding the wheel the saddle is transferred to the central

position and the rider sitting there drives the machine by one of the right hand and one of the left hand sets of pedals. This, of course, produces considerable lost motion in the pedal action, but it at least is possible for a single rider to take care of and to drive the wheel to and from the place of appointment with his friend. It is not a wheel depending absolutely on the presence of two riders. The wheel shown in the illustrations is made by the Punnett Cycle Mfg. Co., Rochester, N. Y.

A HANDLE BAR BICYCLE BELL.

The illustration represents a bicycle bell attached to the outer end of one of the handles, without disfiguring it or offering any impediment to the free use



A SIMPLE AND CONVENIENT BICYCLE BELL.

of the handle bar, while it affords sufficient volume of sound for practical purposes. The improvement has been patented by I. N. Hopkins, of Lockport, N. Y., and is being introduced by the Bridgeport Gun Implement Company, of Bridgeport, Conn., and Nos. 313 and 315 Broadway, New York. It comprises a combined handle and alarm bell which may be placed on the handle bar instead of one of the ordinary handles, the bell being operated by the thumb of one hand. Secured to the outer end of the handle is a plate with projecting central post whose outer end supports the bell, whose external form is such as to conform to the curvature of the handle, the rim of the bell being near but not in contact with the handle.

On a lug on the post is a stud on which is pivoted the hub of a spring-pressed bell hammer, and a projecting tooth on the hub is engaged by a curved spring rod, forming an extension of a push rod extended

Do People Ever Forget Anything?

The brain of mankind has been defined as a kind of photographic cylinder, which retains impressions made upon it through the medium of the senses, particularly through the eyes and ears. If this be true, memory must depend for its intensity or retentive qualities upon the degree of observation with which the record is made.

Nor is this all. If memory's record is kept in the shape of indentations upon the folds of the brain matter, are they ever entirely effaced? In other words, do we really ever forget anything? May it not be that the inner depths of the brain memory have stored up recollections of things which are never again purposely turned to, perhaps, but which instantly spring into being and flash through the mind whenever we hear or see something which recalls them?

There are several well known mental phenomena which strengthen this theory. We know that memory often brightens during the last moments of life, and there are cases on record where Germans, French, Spaniards and others, who, falling ill in this country years after having entirely forgotten their native languages, recovered and used them upon their death beds.

There is a theory that in all such cases the brain folds have relaxed, just as do the muscles and cords of the limbs and body, and that by so doing they expose the mind's monitor indentations (recollections), which were long since folded up and put away as material that could not be of any particular use.—Family Doctor.

Dehydrating Alcohol.

Recommended by H. Wislicenus and L. Kaufmann. The reagent used is amalgamated aluminum, which can be prepared in a few moments by treating aluminum filings, free from oil, with caustic soda solution until a brisk evolution of hydrogen is produced, then washing once superficially with water and allowing a half per cent solution of corrosive sublimate to act for one or two minutes upon the metal, which is still moist with weak alkali solution. The whole operation is rapidly repeated to remove a black scum which forms, and the product is quickly and thoroughly washed with water, alcohol and ether in succession, and is preserved, if necessary, under low boiling petroleum ether. Aluminum filings are on the market, at least in Germany, at a reasonable price. The amalgamation of this metal changes its chemical properties in a remarkable manner, so that it decomposes water violently, and it even becomes hot spontaneously from the action of the moisture of the air, with formation of white flakes of aluminum hydroxide. The reagent has no action upon alcohol and ether, but it reacts promptly with any water contained in them. The authors especially recommend the substance for use in organic chemistry as an entirely neutral reducing agent.—Berichte deutsch. chem. Ges., xxviii, 1323, June, 1895; H. L. W., Amer. Jour.

The Simplon Tunnel.

The convention between Italy and Switzerland for the construction of the Simplon Tunnel was signed a few days ago. The programme of works to be followed is that already begun by the Jura-Simplon Company, the Swiss Federal Council, and the Italian Government. Italy undertakes to construct approach lines from Domodossola to Isella, a distance of 10½ miles. The Italian Government itself does not grant any subvention, but will use its influence to induce the provinces and towns of northern Italy interested in the scheme to provide a sum of 4,000,000 francs. Italy will, however, grant for 99 years an annuity of



BICYCLE FOR TWO.

through a tubular casing in one side of the handle, and terminating in a thumb piece. By pressure upon the thumb piece the hammer is forced back against the resistance of its spring, and released to deliver its blow, the push rod being returned to its normal position by a coiled spring. This improved device is made to fit various sizes of handle bars.

3,000 francs per kilometer for the portion of line in Italian territory, which is calculated to be equivalent to a capital sum of 1,500,000 francs. Switzerland will have to provide a subvention of 15,000,000 francs, of which 4,500,000 francs will be found by the Confederation and 10,500,000 francs by the cantons and towns interested.