

as to force the makers to sell at and below cost. This was the fact however, and it is because they have got sick of this foolish and losing game that they have formed a combination and have advanced the prices to such a rate as will at least save them from loss on the goods they sell. The Association is a very strong one and embraces the Waltham, Keystone, Faheys, Decher, and Blauer Companies. This advance is a step in the right direction and now that the manufacturers have set such a good example the jobbers and retail dealers should see that they also make the profit that they should reasonably expect from the sale of such staple goods. There's no more use of selling goods for the fun of selling them, and the sooner the trade gets back to sound profits the better for everyone in it.

TRADE WATCH REPAIRING.—We direct the attention of our readers to the announcement of Mr. C. W. Coleman in another column. Mr. Coleman is one of the most experienced workmen in Canada, and guarantees satisfaction.

WORKSHOP NOTES.

ENGRAVERS CEMENT.—Resin, 1 part, brick dust, 1 part; mix with heat.

ENGRAVERS BONDING WAX.—Beeswax, 1 part pitch, 2 parts; tallow, 1 part; mix.

CEMENT FOR MARBLE.—The following is a good recipe for preparing a cement that will unite marble, etc.: Melt together 8 parts resin and 1 part of wax and mix the solution with 4 parts of Paris plaster.

GERMAN SILVER.—An excellent German silver is prepared by melting in a crucible 65 parts copper, 23 nickel, 17 zinc, 3 iron and 2 tin. This composition is in every respect equal to silver in appearance, fully as hard and not as vitreous.

LIQUID FOR CLEANING SILVER.—The following solution will be found to produce a high brilliancy in silver work. Cream of tartar 30 parts; sea salt, 30 parts, sulphate of alumina and potash, each 30 parts, water 1500 parts. Boil the article in this mixture.

CLEANING SILVER FINGER RINGS.—Anneal your work over a Bunsen flame or with a blow pipe, then let go cold (and this is the secret of success), and then put in a pickle of sulphuric acid and water, not more than five drops to one ounce of water, and let your work remain in it for one hour. If not to satisfaction, repeat the process. This is undoubtedly the best process that can be used.

ENAMELING ON BRASS AND GERMAN SILVER.—The adhesion of enamel to brass and German silver it is said, may be most perfectly effected by first engraving or pressing the design to be enameled into the alloy, and then coating the whole object, or only the depressed design, galvanically with copper. The enamel can be fused upon this surface as usual, and may then be bronzed, or silvered, or treated in any usual way.

CHARCOAL. The charcoal used in soldering is, in fact, any other charcoal used by the goldsmiths should not possess the evil habit of violently snapping and cracking. Coal burned from oak, or any other coarse grained wood, will snap and crack, while a close, fine-grained, soft wood coal will not. The underlay coal may have its snap taken out by being heated very hot in su-

oven or by blowing the flame with a blowpipe upon it.

MIRROR LIKE DESIGNS ON GLASS.—An ingenious method of obtaining mirror-like designs on glass has been devised by Leclerc. The glass, having been silvered by the chemical process, is coated with a thin and uniform layer of sensitive bitumen, and this is exposed under a transparency, the next step being to wash away the unaltered bitumen with oil of turpentine, so as to leave the bitumen design on the silvered glass. The application of moderately strong nitric acid removes the silver, excepting where it has been protected by the bitumen, so that the metallic design shows like a mirror from the reverse side of the glass. The plate may be backed by paint or any other suitable material.

OTHER NOTES.

EFFECTS OF DIFFERENT KINDS OF ILLUMINATIONS.—The tallow candle is the most unhealthy kind of illumination, while the electric light is the best. The latter produces only one-thirteenth part of the heat generated by a tallow candle and emits no carbonic acid or water. One gas flame is said to vitiate the air of a room as much as six persons do with their corporeal exhalation and breath.

TOPAZES.—A remarkable discovery of topazes was made lately in New South Wales. A portion of a large bluish-green crystal, of the weight of several pounds, was found in Mudgee and sent to the Colonial Museum. Several crystals of 2 to 3 inches were found in Uralia. One specimen of topaz, found in Gundagai, weighed more than 11 ounces, and another one, found in Gulgong, weighs 18 ounces.

GERMAN PEARL FISHERIES.—The German pearl fisheries of Saxony and Bohemia, which were formerly very remunerative, are barely worth mentioning at present, as they are rapidly destroyed both by the natural cupidity of man and the filthiness of the streams. The department of the interior lately called the attention of the officials charged with the preservation of these grounds to existing laws, and exacts of them to energetically oppose the wholesale destruction.

STANDARD MERIDIAN.—It is rather to be deplored that the international conference for establishing the prime standard meridian has adjourned without coming to any agreement. The meridian of Greenwich being almost universally used in the civilized world, and the basis of nearly all the meridional calculations was proposed, but the French representation "kicked" against it, and, therefore, no satisfactory results were obtained. The world could not well get along without a body of scientific men, but it is rather sad to contemplate that each one of them has some pet theory of his own which he cherishes with all the love and devotion bestowed on a "hobby." When a lot of business men met in 1874 at Berne, and established the international postal union, the grandest piece of international fraternity, they transacted their business in a business-like manner, not so a body of savans, however; each one of them has some hypothetical theory, upon the recognition of which by all he bases his glory everlasting, and hence the difficulty of uniting them to act in harmony.

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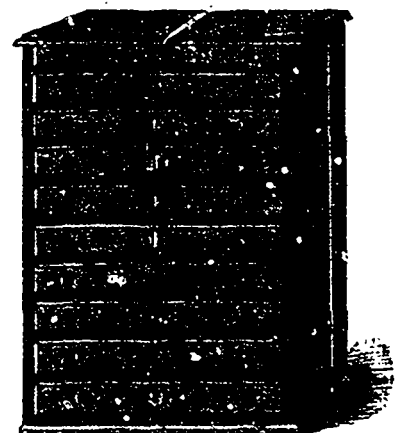
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