

pressed to the surface. The surface of the celluloid when cold requires finishing and polishing much in the manner of ivory. It easily takes fire, and is considered a dangerous article to handle near fire.

(8) **A. B. S.** asks: Can a flue plate on a tubular boiler that has a crack between two flues (distance between flues about 3/8 inch) be repaired, without taking out the flue plate, and if so, how should it be done? A. There is no satisfactory way of repairing a cracked tube sheet. A hole may be drilled and patches bolted on both sides with iron putty for a temporary expedient.

(9) **A. E.** asks: Which is most economical to use on a 30 horse power engine—a 6 foot or a 7 foot balance wheel; and what is the difference in cost of these wheels, each having an 18 inch face? A. So small a difference will have very little effect. Evenness of motion depends upon weight and diameter of balance wheel. The larger size will give a better effect with the same weight. Apart from the convenience of belting, there is economy in a large balance wheel.

(10) **C. A. S.** asks: What will remove limestone from steam copper coil? Coil is used in heating water, and deposit is on outside. A. Hydrochloric acid 1 part, water 3 parts. Swab the coil with the mixture, let it stand an hour or two, and wash with a stiffbrush and water. Parts that do not come off the first time, treat again.

(11) **E. A. C.** asks for a marking ink for wooden packages. A. Dissolve asphalt in naphtha or oil of turpentine to a thin fluid. This dries quickly, and the markings are nearly indestructible.

(12) **C. A. H.** asks a formula for making a cement to cement glass lenses to iron block while grinding. Now use a cement of pitch, resin, and wood ashes, but it often breaks delicate lenses, or during the process of grinding loosens itself from the glass. A. 10 parts resin, 2 parts shellac, 1 part rouge; melt, mix, and add enough turpentine to make it tough, so as not to splinter under pressure from the thumb nail, at the working temperature of the room.

(13) **R. & Co.** ask (1) how pulverized stearite (soapstone) is applied for finishing walls or ceilings. A. The material is ground with linseed oil, same as any dry pigment is mixed with oil to produce a paint. It is said that by its use the parts coated become fireproof.

(14) **L. K.** asks what the size is made of that is used to put on flock. A. The size used for flock work is made from glue, but you will find it best to purchase the article from some ink manufacturer. Details of preparation, obtained from long experience, make it possible for these makers to produce a better size than can be made by a private individual.

(15) **A. L. S.** asks: How many distinct substances are known to science, and how many are used as medicines? A. There are about 67 distinct elements known to science; of these, perhaps 50 are used in medicine.

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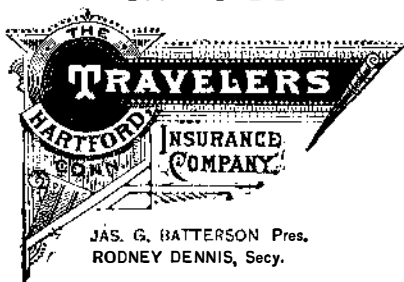
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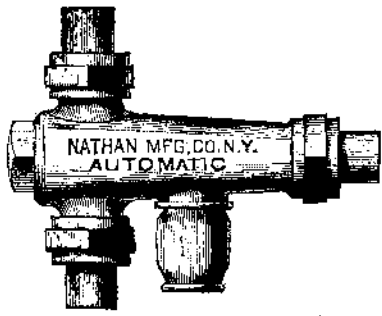
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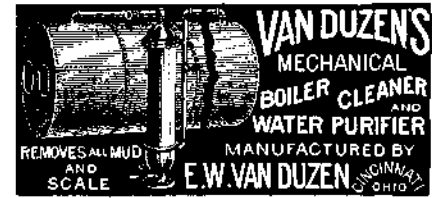
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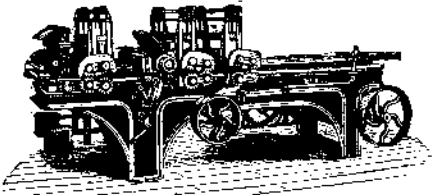
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