use as soon as dried. Spanish whiting treated in the same way, makes a very good cleaning or polishing powder. Some watchmakers add a little crocus, and we think it an improvement; it gives the powder a nice color, at least, and therefore adds to its importance in the eyes of the uninitiated.

Salt as a Lubricant.—It is said that if iron or steel wire is immersed in a solution of common salt, and allowed to remain till the temperature is the same as that of the solution, the crystals will adhere to the surface with such tenacity as to form an almost perfect lubrication for future drawings. The practice of using brine or salt and water on hot journals is an old-time one, the result being good when they are hot (not warm). The effect in both instances is probably identical.

Writing Inscription on Metals.—Take ½ pound nitric and 1 oz. muriatic acid. Mix, shake well together, and it is ready for use. Cover the place you wish to mark with melted beeswax; when cold, write your inscription plainly in the wax clear to the metal, using a sharp instrument; then apply the mixed acid with a feather, carefully filling each letter. Let it remain from 1 to 10 minutes, according to appearance desired, then throw on water, which stops the process, and remove the wax.

To Transfer Prints, etc.—Take gum sandarac, 4 oz.; mastic, 1 oz.; Venetian turpentine, 1 oz., alcohol, 15 oz. Digest in a bottle, frequently shaking, and it is ready for use. Directions: Use, if possible, good plate glass, of the size of the picture to be transferred, go over it with the above varnish, beginning at one side, press down the picture firmly and evenly as you proceed, so that no air can possibly lodge between; put aside, and let dry perfectly, then moisten the paper cautiously with water, and remove it piecemeal by rubbing carefully with the finger; if managed nicely a complete transfer of the picture to the glass will be effected.

SCIENCE NOTES.

Gas companies are now turning their attention in England to the manufacture of sulphate of ammonia, and the probability is that there will be more attention than ever given to this industry by manufacturers of illuminating gas. Progress in electric lighting is working a change in utilization of so-called waste products.

It has been proposed, says the *Glassware Reporter*, to employ zinc for extracting gold from auriferous rocks. The pulverized rock is gradually introduced into a bath molten zinc, which combines with the precious metal so that the refuse which rises to the top can be skimmed off. The gold may be subsequently separated by distilling the alloy, the zinc passing over and leaving the precious metal behind.

To make incombustible writing and printing paper, asbestos of the best quality is treated with potassium permanganate and then with sulphuric acid. About 95 per cent. of such asbestos is mixed with 5 per cent. of wood pulp in water containing borax and glue. A fireproof ink is made of platinous chloride and oil of lavender, mixed for writing with India ink and gum and for printing with lampblack and varnish.

There is one thing to be said about the incandescent electric light, with all its drawbacks. It neither vitiates the air nor gives the high and often unbearable temperature of gas. No doubt one of these days electric illumination of dwellings will be a usual thing in large cities.

It is almost a self-evident fact that there should be some other way of disposing of sewage than turning it into streams. But there is hardly any censure too severe for those who cut and store ice from polluted waters. Organic germs of disease are contained in such ice. People drink water cooled by it in the summer, when the system is most liable to sickness, that may last all the year round.

M Cornu thinks that he has ascertained by experiment that the glowing of phosphorus is due to a volatilization of its mass and a subsequent production of ozone by electrical energy generated by the volatilization of the phosphorus. Phosphorus does not glow at all in oxygen under high pressure, because, says M. Cornu, volatilization is impeded, and at a certain limit becomes too slow to ozonize the oxygen. Gases which prevent the formation of oxygen also prevent phosphorescence.

Filters of a cheap and efficient nature ought to be in the market. A draught of good pure water in the morning can rarely be had. Cisterns are placed so that they receive and absorb the gases of water-closets and the dust which arises from rooms during the weekly sweeping out. Fifty cents ought to be enough for a filter to supply any single person with drinkable, wholesome water. Another good thing about a filter is that the ice need never come in contact with the water, and yet make it cool enough to be palatable.

The ancients knew a great deal for which they got very little credit. A short time ago a collection of surgical instruments was dug up at Pompeii. It was evidently the property of some single establishment, and was quite elaborate. Of course the "find" was removed to the Naples Museum. One of the appliances attracted great attention. It was a long rod with a metallic plate fixed at one end at an angle of 135 degrees. At first it was thought to be a cautery for internal operations, but its resemblance to the modern laryngeal mirror suggests the probability that it was so used.