

### Photographing Polished Silver.

The highly-polished surface of ornamental silver vessels is well known to occasion considerable trouble to the photographer, not only from the brilliant mass of light reflected, but from the number of irregular reflections from surrounding objects, the effect of which materially interferes with the due rendering of the design. Some very unsatisfactory results of this kind being obtained by a photographer for a large firm at the West End, the manager of the artistic department, an Irish gentleman of great resource, exclaimed to the photographer, "Why don't you put a piece of ice in the jug?" The question was solved in a moment. A piece of ice in the silver vessel would rapidly cool it, and so cause it to condense vapours on its surface from the surrounding atmosphere. This would just sufficiently dim the excessive luster to render a good photographic representation possible. Our readers should not forget the hint.—*Photographic News*.

### Washing Photographs.

A wheel made on the same principle as a water-wheel, in which the buckets would contain the photographs to be washed, would revolve by the weight of the water in the buckets, the photographs being prevented from falling from these as the wheel revolved by several rods either projecting from the sides of the bucket or by a covering of metal network. As the wheel revolved the buckets would empty themselves, and thus the prints would by every revolution, be alternately floated and then drained.—*American Artizan*.

### Durability of Granite.

The enduringness of the granite mountains belongs to the blocks cut out of them, down even to the smallest fragments. No material, accordingly, is so suitable for buildings or erections which are to be very lasting. The air can rust nothing out of granite blocks; rain can dissolve nothing out of them; rivers even may flow in granite beds for miles without ceasing to be soft—i. e., unimpregnated with saline matter. Frost has little power to split them; their component particles are bound together by a strong cohesion; plants do not readily grow on them; they remain undischolorated for ages. In proof of this, we have the obelisks of the ancient Egyptians, still standing like detached peaks of granite hills.

### The Home of the Muscovy Duck.

At a meeting of the Academy of Natural Sciences, Philadelphia, Mr. Hill stated that the habitat of the Muscovy duck is the Lake of Nicaragua. There travelers see them at all times, either in small breeding coteries, or large flocks. In the wild state their plumage is dark without any admixture of white. They were originally procured from the Mosquito shore, the country of the Muisca Indians (see Humboldt's researches), and hence is derived the name of Musco duck corrupted into Muscovy duck. The West Indian Islanders had early naturalized them, for on the discovery of Columbus, they speak of "ducks as large as geese," that they found among the Indians

### The Electric Light.

The *Courrier de Bretagne* gives an interesting account of recent experiments with the electric lights at Lorient. The night was dark, many spectators assembled, in addition to the engineers and officers comprising a commission appointed specially by the maritime prefect. First the great dock, in which two ships were under repair, was rendered as light as day, so that the engineers were enabled to go down into it and examine all the details of the repairs. Next a signal mast fixed, at 700 yds. from the "Duchayla," and at 500 from the "Panama" steam frigates; the signals given by flags from the summit of the mast were rendered perfectly visible on board the two ships by means of the electric light. A third experiment caused great surprise and admiration. A diver descended 20 ft. under water, and by means of the light was enabled to distinguish the decimal divisions on a scale which was sent down to him and to give proofs of it. This experiment was deemed conclusive. It is now established that an electromagnetic machine may be permanently fixed to light large workshops, submarine works, and narrow passages into harbours. It was further observed that when the light was brought to bear on the water shoals of fish were attracted by the unusual appearance, and continued to swim around the part lighted. Eels and other fish which were at the bottom of the sea came up to the surface.

### Rule for Spellers.

Many otherwise accurate spellers are frequently puzzled in determining the relative position of *e* and *i* in words ending in *eive*.—Such will be greatly assisted by remembering the invariable rule that when the preceding consonant is a letter which comes after *i* in the alphabet, *e* comes after *i* in the word, as believe, relieve; but when the preceding consonant comes before *i* in the alphabet, *e* comes before *i* in the word, as receive.

### A New Hydro-Carbon in the Coal-tar Series.

M. A. Bechamp recently announced to the French Academy of Sciences the discovery of a new hydro-carbon in the mixture that makes up coal tar. In rectifying with care the products which boil between 130° and 150° cent. (266° and 302° Fah.) M. Bechamp observed that the thermometer remained a long time stationary in the neighborhood of 140° (cent.), a temperature midway between the boiling points of xylene and cumole. Keeping this temperature constant, he separated from 30 measures of brown tar, one measure of a liquid hydro-carbon. A new rectification allowed the whole of this to pass between 139° and 140°. This constancy of the boiling point forbids the supposition that it is a mixture of xylene and cumole. By further purification with concentrated sulphuric acid and sodium the author finally succeeded in producing in the neighborhood of 900 cubic centimetres of a product boiling from the commencement to the end at a temperature between 139° and 140° (282° and 284° Fah.)—*Le Genie Industriel*.