SOMETHING NEW—ALUMINUM JEWELRY*

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In 18th Century Russia, they made stovetops out of platinum. Undoubtedly they were good stovetops, though a trifle heavy. But now platinum has found quite different uses.

In 19th Century France, they made jewelry out of aluminum. St. Claire Deville had found this white, malleable metal, amazingly light in weight, and naturally he had used it in making up jewelry and other decorative articles. Some of the original pieces may be seen to this day, in our museums, and they are not bad looking, either.

As late as 1854, the metal was worth almost its weight in gold. The regal guests of Napoleon III were served from aluminum dishes; but as the commercial era for the metal dawned some 30 years later, aluminum threw off its aristocratic cloak and went to work in the kitchen.

But many things have happened in the past 45 years. The demands for lightweight metals, combined with the development of modern metallurgy, have brought out a group of aluminum alloys characterized by strength and beauty. Aluminum is being used not only in science and industry—in trucks and buses, street cars and railroad cars, airplanes and dirigibles—but also once more in the manufacture of jewelry.

A hundred different materials are being made into novelty or "costume" jewelry—glass, silk, coral, natural and synthetic stones, Bakelite and other plastics, carved and colored wood, shell, and what not. The metals involved include brass, silver, German (nickel) silver, Britannia metal, and others. Because of its beauty, lightness, and permanence, aluminum promises to become popular.

Two outstanding novelties are shown in the illustration: the aluminum wristwatch and colored bracelets. The colors are lively pastel shades of blue, green, yellow, rose, and so on, and when combined with the silvery white surface of the metal, the effect is very pleasing to the eye—even the critical feminine eye.

To the metallurgist, the most interesting of these items is the watch. Both the case and the bracelet, as well as most of the inner parts of the watch itself, are made from strong aluminum alloys of the same general class that went into the framework of the Navy's new airship Akron—the world's largest.

These alloys possess the strength of structural steel, yet retain the beauty of aluminum. The non-aluminum parts, which constitute about 3 percent by weight of the watch, include the hands, main spring, and hair spring (which are steel), and the brass and steel balance wheel. The jewels, of course, are orthodox in every respect.

The watch is 65 percent lighter than a watch made from the usual metals, and it weighs, complete with the wrist band, a shade less than an ounce.

One question comes up repeatedly in any discussion of metals: What effect does it have on the skin? It is well known that many skins are irritated by nickel and brass, and especially so by chromium. Aluminum, however, under ordinary conditions does not injure the skin, nor does perspiration noticeably attack it. Aluminum arch supports and collar buttons are used without ill effect. Even if the skin be broken, contact with aluminum is said to have no unpleasant reaction.

One of the bracelets in the picture—it is lying across a corner of the mesh bag—shows a depression or fluting of its surface. In the original this fluting is colored a fine clear green. Others of the lot have a blue stripe, or a yellow or rose effect. This color is novel and arresting to the eye. It does not resemble enamel, or paint, but might be described as a transparent stain. Plainly it will not chip off. The "Alumilite" process, by which it is applied, is unusual. First the aluminum surface is given an anodic treatment—it is made the anode in an electrolytic bath—and becomes covered with a firm oxide film. This film of aluminum oxide has a strong affinity for certain organic dyes and mineral colors. When these dyes are applied to the prepared surface, the result is a smooth, hard, highly lustrous finish of real beauty.

In view of the many advantages that aluminum has as a decorative metal, it is pleasant to learn that an effort is being made to confine it to carefully made articles, of tasteful design, to be retailed through shops of good repute. When cheaply made, the effect is far from attractive; when carefully made and finished by hand, the effect is sufficiently handsome to justify a fair price.

Beauty, permanence, workability, and rarity, are the virtues commonly associated with a jewelry metal. Certainly aluminum, the Cinderella of the metals, has beauty, and it compares well with the novelty metals (if not with the noble ones) in retaining its finish. Certainly aluminum is innocent of ill effects upon the wearer. And certainly it is workable. Rarity? There aluminum must hang her head. As a matter of fact, aluminum is the third most plentiful element in the earth's crust. Of course that does not detract from her beauty, permanence, or workability, and in the making of novelty jewelry, rarity is not an indispensable characteristic.

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*Courtesy of Brass World and Plating, Polishing, Finishing.