

STAINLESS IRON'S MANY ADVANTAGES

New Product Is Said to Be
Tougher Than Ordinary Iron
and Stronger Than Brass.

LEAD WOOL NEW INVENTION

Metallic Yarn Is Sold in Hanks
and Is Suitable for Joining
Concrete Pipes.

A stainless iron which is tougher than ordinary iron and stronger than brass has been produced as a result of experiments that have been conducted in Great Britain for some time past. The object of these experiments was the production of a metal possessing the rust-and-stain-resisting properties of stainless steel, but so ductile that it might be employed for purposes for which stainless steel, by reason of its hardness, is unsuitable.

It is stated in a late report from the British metal trades that the new stainless iron can be forged, stamped, pressed, embossed, chased or engraved, and burnished equal to electroplate. Meanwhile it possesses a primary advantage in that no heat treatment is essential, as is the case with stainless steel, to bring out its stainless properties. The new stainless iron may also be soldered, brazed and electrically welded. It can be obtained in bars of various sections, strips, sheets, tubes, and even wires.

It is anticipated that the new untarnishable iron will be used for many purposes, from art metal work to making hot water bottles. Bathroom fittings, bolts and nuts, bicycle parts, buttons, cooking utensils, drop forgings, electric fittings, engine fittings, knitting needles, motor car bonnets, cooking

stoves and ranges, steam radiators, fittings, shop fittings and railway fittings are only a few of these. The ultimate application of the material would appear to be without limit, it is pointed out.

Lead wool is also mentioned, by the trade report as a recent invention which will work considerable improvement. This material is lead made by a process into a metallic yarn and sold in hanks or skeins like ordinary wool. It takes the lead over any alternative process for caulking pipe joints, for conveying water, gas, electric mains, drainage, &c., representing a great improvement over the older method by which molten lead is run into the joint and then calked.

Advantages over the older method are claimed on the following counts; The old cast lead method requires cumbersome expensive and sometimes dangerous melting apparatus. The lead is run in at a high temperature and is calked on the face, which, it is asserted, does not sufficiently provide resistance to pressure, vibration and sagging. It is necessary for the pipe to be perfectly dry as otherwise the moisture turns to steam and blows out the lead, thus leading to weakness and consequent leakage and expense. When pipes have to be laid in wet ground, or in repairing a burst main, considerable difficulty is countered. If the yarn is improperly calked there is danger of the lead running through into the pipe, causing waste, and affecting the flow of gas or water through the pipe.

These difficulties are all removed by the use of the lead wool, it is pointed out. First the yarn is calked in. Then every turn of lead wool is calked so that the joint is well calked throughout. The finished joint is said to be twice as strong as the run-lead joint and to withstand three times the amount of vibration and sagging without leakage. Meanwhile the cost is one-third less, no special skill is required and only a preliminary instruction necessary for workmen.

Concrete pipes will be used, it is prophesied, in future in many parts of the world, and lead wool is a very suitable material for jointing such pipes. It gives the necessary flexibility to the pipe, and, being applied cold, there is no danger of surface cracks being set up. The trade report cites the many special jobs which have been carried out in recent years in various parts of the world, including British Columbia, West Indies, India, Straits Settlements, Chile, Australia, New Zealand, Nigeria, for which the older process is entirely unsuited. An example was the work of calking cracks in concrete works while the water was still running.