

cylinder is only associated with scratches or scoring of the surface.

As a matter of fact it is very seldom friction shows itself in this way, it is almost entirely displayed in a smoothing effect, especially if the metal is good. A well-lubricated cylinder ought to present a rather dark-looking surface, smooth, but with no signs of bright polish, even if coated with oil. The slightest rubbing with a polishing rag would produce a bright surface on such a cylinder, thereby proving that the lack of a polish is due to the absence of friction.

In addition to the "oil polish" referred to above, we have the smoothing and polishing effect produced in ammonia cylinders of refrigerating machinery, the "water polish" frequently observed in marine engines, and in pump cylinders, and the "graphite polish."

The water polish seems to be a thin, hard skin formed upon all the sliding surfaces of engines where the water of condensation furnishes the only internal lubrication. This gives remarkably smooth surfaces, but is rapidly lost if the engine is allowed to stand idle, as the polish rusts very quickly, resulting in more harm than good.

The "graphite polish" is different from any of the above. In the cases mentioned before the polish is obtained by rubbing off the roughness of the grain of the metal. Graphite

polishes by filling in the grain of the metal, just as wood filler and varnish polish a surface of wood, and so this cannot, like the other, be construed as an evidence of friction.

It takes considerable time to acquire an oil or water, polish, and it soon rusts, cuts, or otherwise disappears. Not so with a surface finish supplied by flake graphite. It is easily obtained, easily maintained under all conditions, resists rust and corrosion, and is entirely unaffected by heat or moisture.

The largest economizer in the New England States has just been installed by the B. F. Sturtevant Co., Boston, Mass., for the American Woolen Co., at Maynard, Mass. It is divided into two groups, the first being used for heating feed water for the boilers and the second for furnishing hot water for dyeing purposes. Even before the installation was entirely completed, a saving of \$500 per day in coal was attained.

Every now and then meteors shoot across the sky of publicity. Campaigns are launched on a colossal scale—news-papers are filled with quarter, half or full page ads; billboards scream the story of the new product; car cards reiterate it; booklets and circulars lauding it are

lavishly mailed and distributed. For the space of a few months there is a tremendous stir and scintillation. Then the whole proposition goes out in the dark, and everyone speedily forgets it. The cause of these meteoric advertising careers lies in the failure to recognize that constancy is a jewel in advertising, and that advertising success is a matter of steady growth, not one of sudden forcing.

Finch, Pruyn & Co., Inc., Glens Falls, N.Y., are to install a heating and ventilating equipment in their paper and pulp mills, consisting of a number of Sturtevant fans, heaters, and ventilators, with a hot air distributing system. The 1,800 h.p. boiler plant will also be equipped with mechanical draft by the B. F. Sturtevant Co., Boston, Mass.

Somers loves to tell of his early experiences as a drummer. One night he had to stay over in a very small town. He confided to the woman who ran the hotel that he was very fond of butter-milk. At supper she brought in a huge jar of it, sat it on the table in front of him and said: "Go ahead and drink all you want to. We don't keep no pig."

Carefully examine into every detail of your business.



The largest steel and brass manufacturers use McCullough-Dalzell Crucibles. They prefer them because they have been proved by actual test. Send us an order.

**MCCULLOUGH-DALZELL CRUCIBLE CO., Pittsburgh, Pa.**



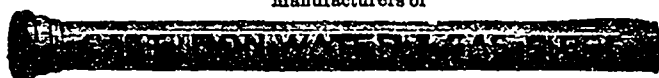
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SUCCESSORS TO

**DRUMMOND-McCALL PIPE FOUNDRY CO.**

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Manufacturers of

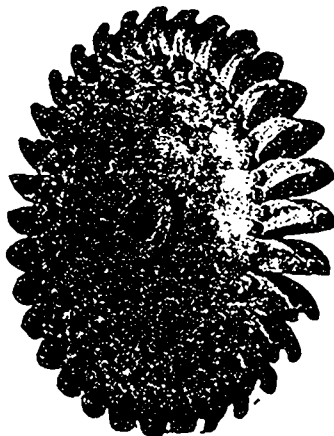


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When writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.