

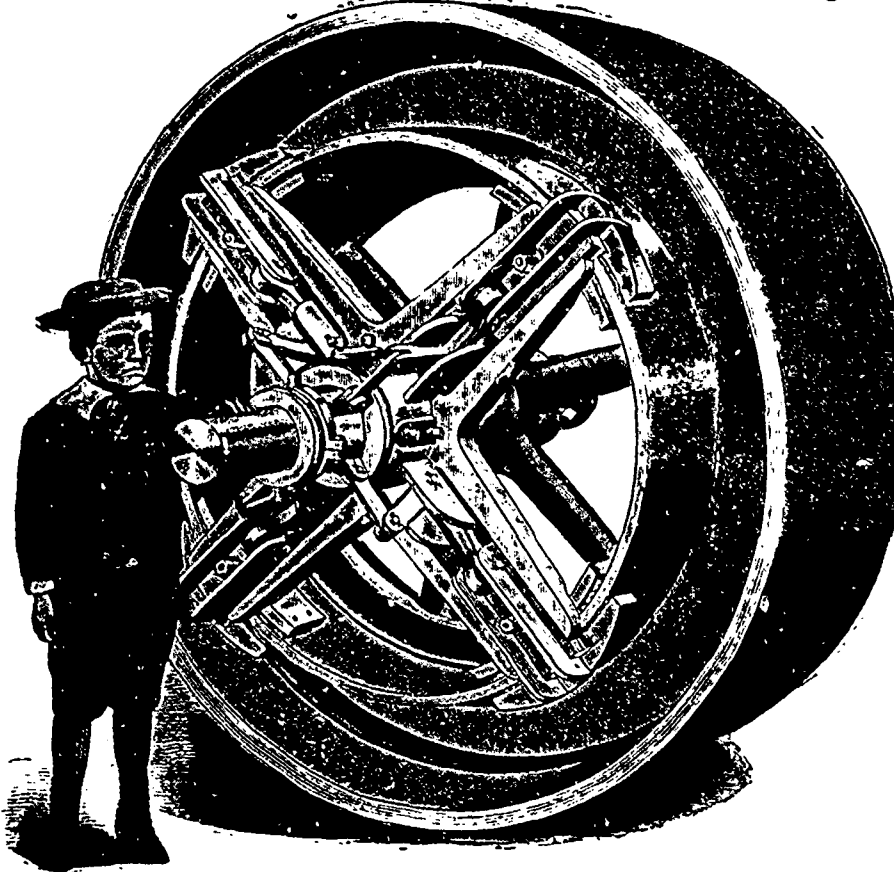
NOTES.

An engineer calls attention to the placing of a lubricator on a steam pipe, and thinks it makes a difference which side of the pipe it is placed on. Placing the cup on the side nearest one end of the cylinder, he found that end of the cylinder got the bulk of the oil which ran down the inside of the pipe. He now enters his oil supply pipe into the steam far enough to let the oil come into the center of the column of steam. This is done by tapping and running a short length into the steam pipe before attaching the lubricator. *London Journal of Commerce*

Some causes which produce over heating. Heavy fire and sluggish draft. City boilers with the spaces between tubes lined up back of moving with water and being a barrier to the heating furnace, too far out of the boiler that throws off intense heat, with not enough air to mix with it, clogged grates, too and heavy fire on top, putting too much solvent in boiler, which causes the stuff to fall on bottom of boiler, smoke stack neither large enough or high enough. As the above will be indicated when too much heat burns off the liners of the fire front and throws an intense heat out towards the fireman. Another cause is the practice of firing furnace too full of fuel, and then, when steam is generated too rapidly closing all dampers and draft pipes. When tubes leak at back end particularly at the top rows, water has been let down too low in boiler, the same cause produces leaks in other side, cracks and seams of at water line. Too much mud in boiler, either at bottom or around tubes at rear end, produces leaks. *American Miller.*

The substitution of lead instead of zinc for coating or galvanizing conductors is advocated in an article in *E. Electrician*. Zinc has certain disadvantages, tendency to form an alloy, high melting temperature and tendency to flake. Lead seems to be preferable for certain reasons and its application is similar to that of zinc. The objects are cleaned electrically, and immersed in an aqueous solution containing 10 per cent. of hydrochloric acid and 1 per cent. of hydrofluoric acid, heated to 50° C. in a vessel coated with lead. They are connected to one pole of a dynamo as anode, the lead coating constituting the other pole. After this preparation they are dipped into limewater of the same temperature, and then into an alloy of equal parts of zinc and tin in hydrochloric acid, which greatly favors the adherence of the melted lead into which they are then dipped. The process is economical and is not confined in its advantage to iron or steel articles, but may be used for chemical and electrolytic vessels. The iron or steel wires serving as protection in armored cables, it is suggested, might be advantageously treated by this method in preference to the ordinary galvanizing process.

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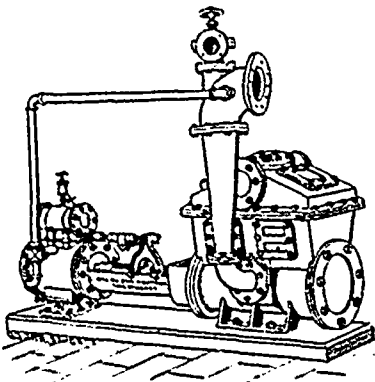
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