

the sulphuric acid and water upon them, which is extricated in the combustion of the ordinary coal gas, that the finger could be passed through them with the greatest ease; and this effect had been produced in a very short space of time. The Editor, on calling upon the manufacturer to ascertain the fact, found it to be as stated; the iron being converted into rust, and nothing left but the outward coat of tin, and the paint with which it had been covered.

The foreman stated that this was a very common occurrence, and was entirely caused by the maker of the lanterns neglecting to paint the *inside* as well as the *outside* of the covers with oil-paint; and which his employer constantly made it a point of doing, not only on first sending them out of his manufactory, but he also periodically renewed the painting afterwards; and that in this way, and by this cheap and simple expedient, the lanterns were made to endure for a considerable length of time.

[*Tech. Rep.*]

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*On an effectual cure for Smoky Chimnies. By Mr. S. MORDAN.*

MR. MORDAN, the patentee of the ever-pointed pencils, showed the Editor lately his contrivance for preventing his kitchen chimney from smoking, and also for quickly exciting his fire, without the aid of bellows.

His fire-place, like many others, had a wide open chimney to it, and was continually annoying his family by smoking. He determined, therefore, to contract the throat of his chimney in the following judicious manner:—He caused the entire opening at the bottom or throat of the chimney to be closed up, with the exception of an upright flue, just above the top of the grate, about a foot wide and high, and which led into the chimney. To the face of this flue he applied a square flat frame of wrought-iron, having upright grooves made on each side of it, in which a sort of hood, made of sheet-iron, could slide up and down. This hood is open behind, and projects about a foot square in front of the chimney back, over the fire-place or grate, and is sloped off at its top, towards the back of the chimney, and it has a handle in the front of it to raise and lower it by.

When the hood is elevated, it serves to guide the smoke and heated air into the upright opening leading into the chimney, its sides being closed to fit the upright back of the fire-place; and the fire then burns in the usual manner, but the chimney never smokes. When, however, he wishes to excite the fire at any time, he lowers the hood until its bottom nearly reaches down to the tops of the cheeks, or two keepers of the grate, and the fire, by the draught thus caused, instantly revives. In addition to this hood, he likewise occasionally hangs upon ledges, formed upon each side of it, an appendage made of sheet-iron, which lengthens it so that its sides fit close upon the tops of the keepers, and thus the air can only gain access to the fire through the front and bottom bars of the grate, and then, indeed, the fire burns most vehemently.

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