

UNITED STATES PATENT OFFICE.

WILLIAM FOGLESON, OF SHELBY, OHIO.

COMPOSITION FOR TEMPERING STEEL.

SPECIFICATION forming part of Letters Patent No. 239,236, dated March 22, 1881.

Application filed September 10, 1880. (No specimens.)

To all whom it may concern:

Be it known that I, WILLIAM FOGLESON, of Shelby, in the county of Richland and State of Ohio, have invented certain new and useful
5 Improvements in Means for Tempering Steel; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the
10 same.

My invention relates to a new means for tempering steel for tools and the like; and the novelty consists in the said means, which will be hereinafter described, and specifically
15 pointed out in the claim.

In tempering tools, such as lathe-tools, chisels, drills, taps, dies, all kinds of edge-tools, and the like, it is a great desideratum to have the temper even, and also to have the tempering done quickly.
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As heretofore practiced an even temper, or a temper of corresponding character throughout the extent of the edge of the tool, has been an experiment of doubtful and contingent nature, and while few have received the correct
25 temper desired many have been comparatively useless because of the unevenness, and the tempered tool has broken in places or been useless for service in others. The artisan has
30 also been compelled to use file or test-hammer to discover the degree and quality of the temper.

To obviate these and other difficulties, and to afford an even temper to the complete oper-

ating-surface of the tool, my invention is de- 35 signed.

In carrying out my invention I employ a compound the formula of which is as follows: of kerosene-oil, one pint; of lard-oil, one pint; of beeswax, five ounces; of spirits tur- 40 pentine, two ounces. The beeswax and lard-oil are melted together, being subjected to a proper heat, which will not burn, when the kerosene-oil and turpentine are added and the whole thoroughly mixed to form the com- 45 pound.

In my process of tempering steel by this compound I first heat the steel to a cherry-red, and then immerse it in the usual tempering-liquid, after which the compound hereinbefore 50 described is applied in any suitable or desired manner, and the steel is held over the fire until the compound ignites. The steel is then cooled quickly in water, and an even temper results. 55

What I claim as new is—

The compound for tempering steel herein described, composed of kerosene-oil, lard-oil, beeswax, and turpentine, substantially as and in the proportions specified. 60

In testimony that I claim the foregoing I have hereunto set my hand this 10th day of August, 1880.

WILLIAM FOGLESON.

Witnesses:

WILLIAM OWINGS,
E. W. ROBERTS.