To all whom it may concern:

Be it known that I, EDWARD WILLIAM MACKENZIE HUGHES, a subject of the King of Great Britain, residing at 53 Victoria street, in the city of Westminster, England, have invented certain new and useful Improvements in the Manufacture of Axle-Boxes, of which the following is a specification.

According to this invention the body of an axle-box is formed from a metallic block or ingot by first compressing the block to not only mold in one end of it a hollow cavity, but also at the same time to bring the opposite end to the thickness required for forming the top of the box and to mold on its exterior a spring-seat of any form required. By the same operation projecting lumps are also molded on the exterior of two of its opposite sides to provide metal for being subsequently drawn down to form the necessary exterior guide-ribs. The cup-shaped block thus formed is after reheating placed onto the end of a plunger or mandrel and is by it forced through three or more fixed dies in succession, by which the sides are drawn down gradually to the required thickness and a groove formed along each lump as it is being drawn down, so as to produce on each of the two opposite sides two parallel guide-ribs. The drawn-down block is then quickly removed from the mandrel, the superfusuous metal is cut off from its open end, and this end then made to embrace the sides of the shallow tray, which becomes gripped and held as the sides cool.

The completed box (shown in Figs. 8 and 9) is of the ordinary English pattern; but other forms of boxes may be made in the same way.

What I claim is—

The process for the manufacture of axle-boxes which consists in first compressing between a pair of dies a metallic block to mold a hollow cavity in one end of it and bring the opposite end of it to the exact form required for the top of the box while at the same time forming projecting lumps on the exterior of two of its opposite sides, then after reheating the molded block placing it onto the end of a mandrel and causing the mandrel to carry it forward through a series of fixed dies to draw the sides down to the shape and thickness required and mold each of the lumps into two parallel guide-ribs, afterward quickly removing the drawn-down block from the mandrel and without reheating cutting off all superfusuous metal from its open end and causing this end while still hot to embrace the sides of a tray which is to form the bottom of the box so that the tray may be gripped and held as the sides of the body of the box cool down.

EDWARD WILLIAM MACKENZIE HUGHES.

Witnesses:

H. SARENCIENS PEARSON,
Geo. Robinson.