

(No Model.)

J. FONDA.

SWITCH BLOCK FOR RAILWAYS.

No. 287,920.

Patented Nov. 6, 1883.

Fig. 1.

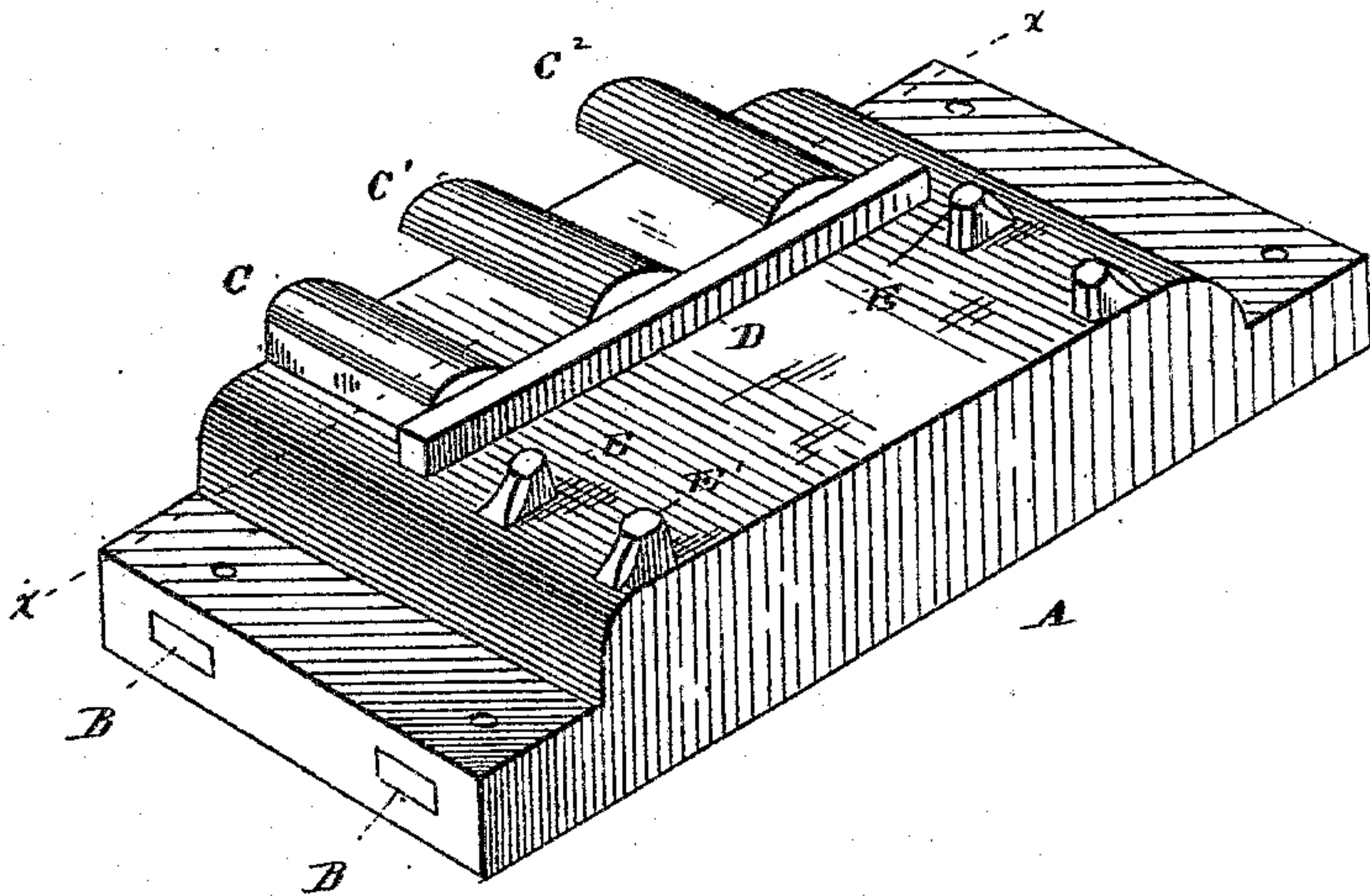
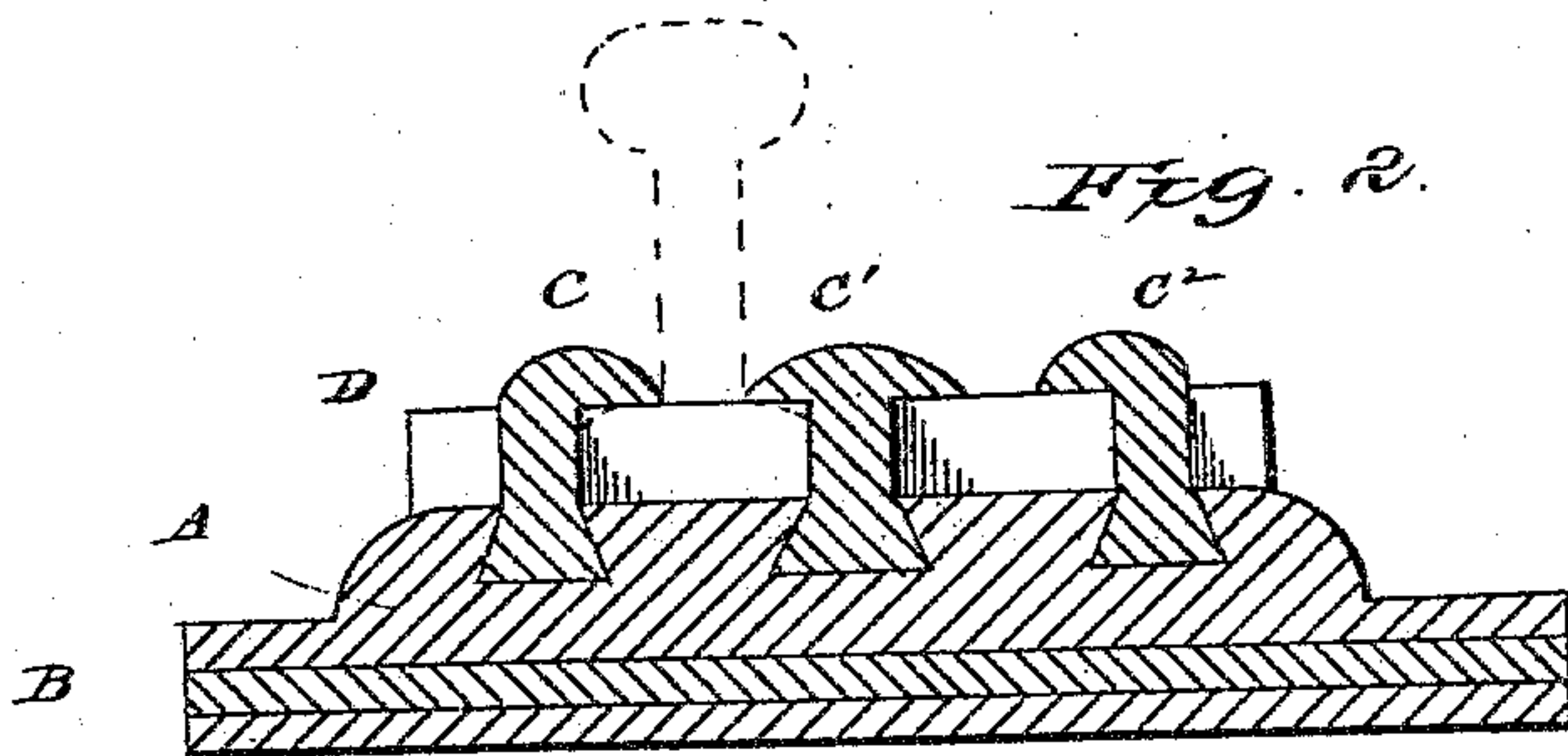


Fig. 2.



Witnesses.

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SWITCH-BLOCK FOR RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 287,920, dated November 6, 1883.

Application filed January 23, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN FONDA, of Battle Creek, in the county of Calhoun, and in the State of Michigan, have invented certain new and useful Improvements in Switch-Blocks for Railroads; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to railway-switch blocks; and it has for its object to provide a switch-block which shall be capable of withstanding the severest usage to which such devices are subjected by reason of the pounding and percussion they receive from the heavy trains rolling over the rails which they support; and it has for its further object to provide a strong and reliable means for firmly holding in place, relatively to each other, the ends of the rails forming the main track and siding or switch, all of which will hereinafter more fully appear.

In the accompanying drawings, forming a part of this specification, and on which like reference-letters indicate corresponding parts, the means by which these objects are accomplished are illustrated.

Figure 1 represents a perspective view of my improved switch-block, and Fig. 2 a vertical transverse sectional view thereof, the same being taken on the line *x x* of Fig. 1.

The letter A designates the body of the switch-block, which consists of a partial union or fusion of two kinds of iron—namely, cast and wrought iron—the latter being indicated by the letter B, and which in the present instance is in the form of elongated bars running transversely through the body of the block.

In some instances I employ steel, instead of wrought-iron, thereby combining in my block the two metals cast-iron and steel.

The ends of the block A are preferably reduced in thickness and provided each with a series of vertical apertures, the object being to afford suitable passages for the spikes or other like devices employed in securing the block in place while in use.

It will be observed by reference to the drawings that these apertures are so located as to cause the spike to pass through the wrought-

iron bars, by which arrangement greater strength is obtained and less liability of breakage of the block incurred.

The letters C, C', and C² refer to a series of shoes, which are also made of wrought-iron, and which are integral with the body of the block in like manner as the bars B. The vertical parts of the shoes, at their lower ends, are preferably enlarged or of dovetail form, as shown in Fig. 2, the object of which is to more securely hold them in the body of the block, in which they are preferably embedded to some extent. The two outer of these shoes, C and C², are in cross-section approximately of the shape of the letter L, the former by the said letter when in an inverted position, thus Γ , and the latter by it when inverted and reversed, thus Υ , and the middle shoe is about T shape in cross-section. The overhanging lugs, thus formed, are adapted to fit over and bear down upon the flanges of the rails inserted between them, as shown in dotted lines in Fig. 2 of the drawings.

The letter D indicates a guide-bar cast as a part of the block proper, the function of which is to afford a guide or abutment by which the switch-rail shall be prevented from getting longitudinally or endwise out of place, the said bar thus acting in a corresponding manner to the studs or lugs E and E', which serve to limit the lateral movement of the switch-rail against which it abuts when in line, either with the main or siding track.

The thickness of the guide-bar D is about equal to the space between the adjoining ends of the main and siding tracks, respectively, and the switch-rail, thereby permitting the latter to come near to the respective ends of the former and avoiding an excess of space between their adjacent ends; or these ends may be formed with a recess into which the guide-bar may fit. The said bar may also be slightly curved, to form the arc of a circle equal in radius to the length of the switch-rail.

In manufacturing my device the strengthening-bars and shoes, which are made of wrought-iron, are first set up in the mold at the proper points, and then the molten iron forming the body of the cast-blocks, the lugs and guide-bar poured in and allowed to run round, envelop and unite or partially fuse with said

strengthening-bars and the shanks or vertical parts of the shoes.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A railway-switch block having its body made of cast-iron, and provided with wrought-iron or steel strengthening-bars embedded therein, substantially as described.
2. A railway-switch block having its body made of cast-iron, and provided with wrought-iron rail-shoes having shanks embedded in the body of the block, substantially as described.
3. A railway-switch block having its body made of cast-iron, and provided with wrought-iron strengthening-bars and rail-shoes, said

bars and the shanks of the shoes being embedded in the body of the block, substantially as described.

4. A cast-iron railway-switch block having a guide-bar and stop-lugs cast integral therewith, and provided with wrought-iron strengthening-bars and rail-shoes, said bars being embedded and the shoes being partially embedded therein, substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 18th day of December, 1882.

JOHN FONDA.

Witnesses:

MARTIN METCALF,
FRANK W. CLAPP.