

R. T. Crane,
Core Bar.

N^o 80,607.

Patented Aug. 4, 1868.

Fig. 1.

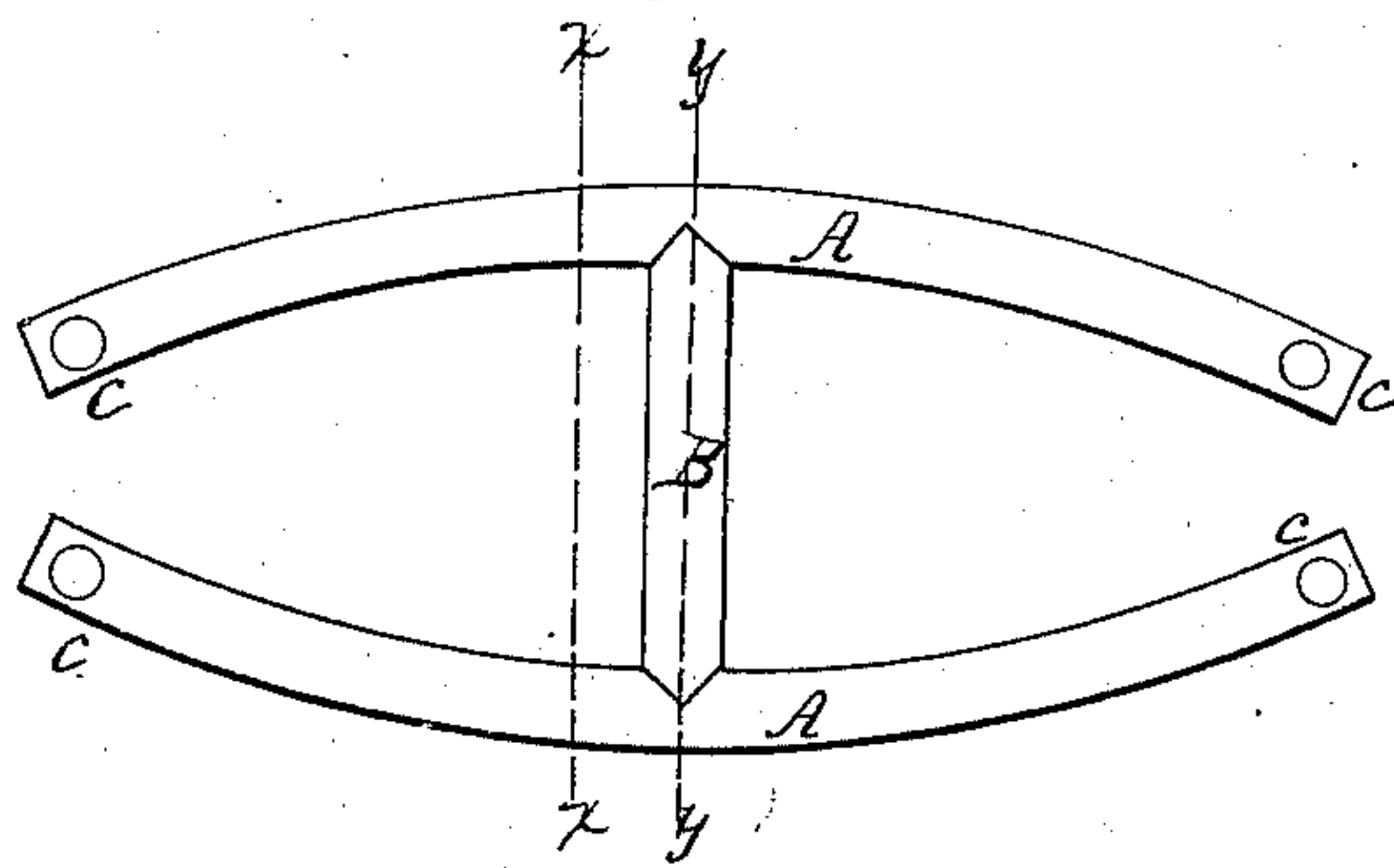


Fig. 2.

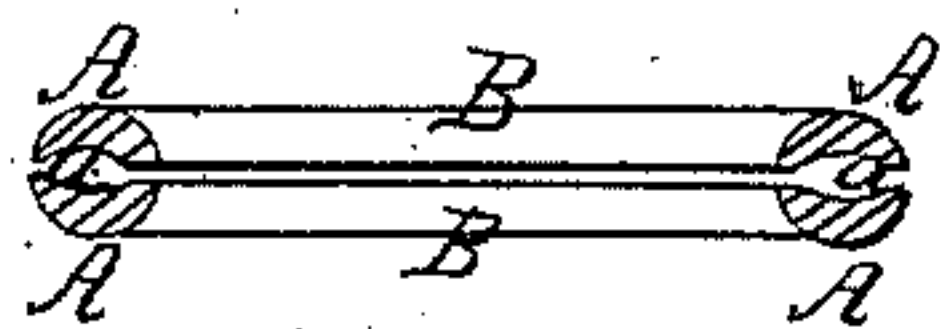


Fig. 3.

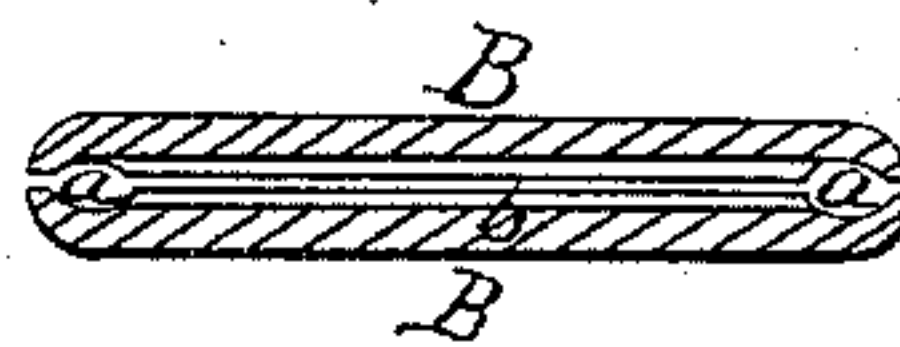
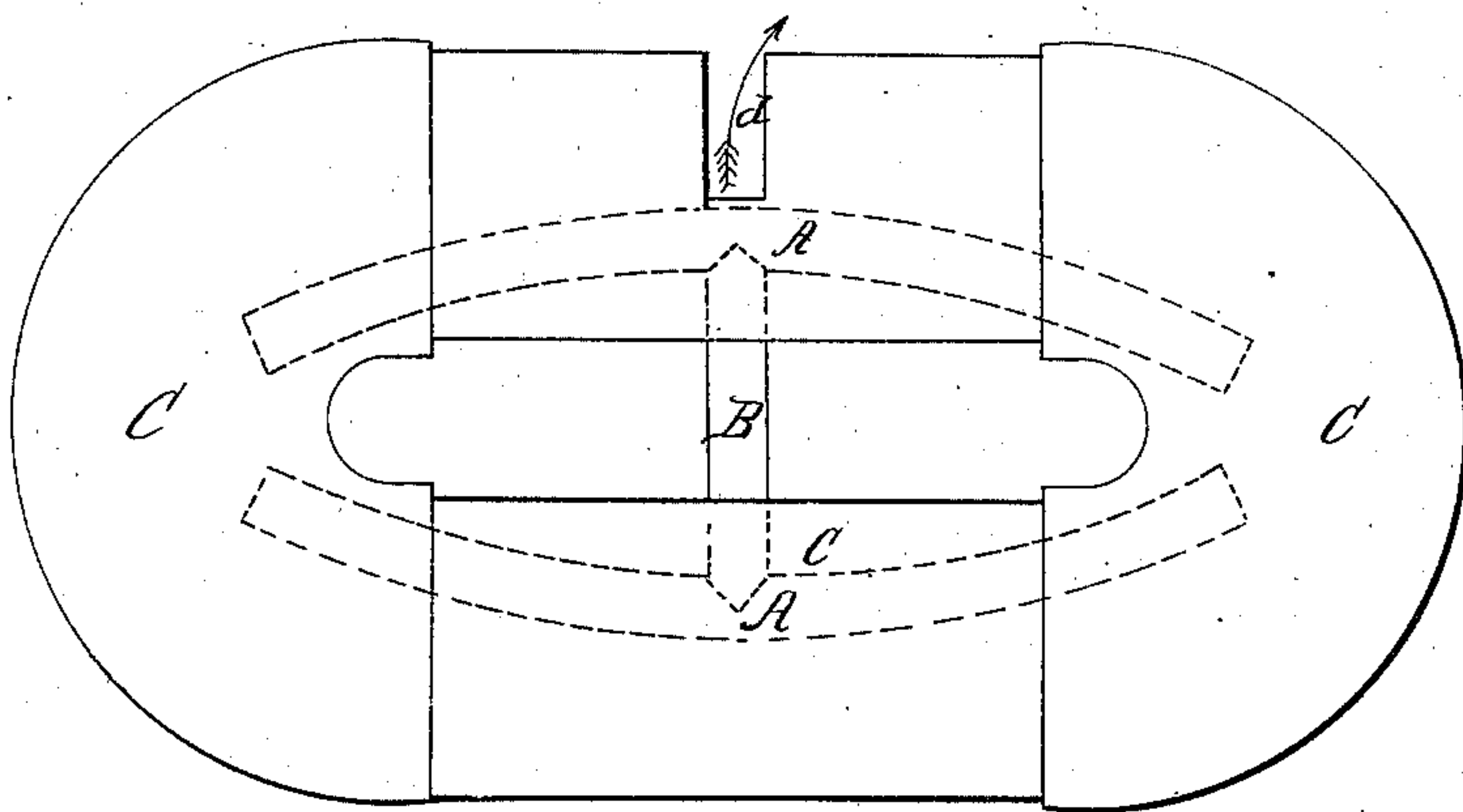


Fig. 4.



Witnesses;
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United States Patent Office.

RICHARD T. CRANE, OF CHICAGO, ILLINOIS.

Letters Patent No. 80,607, dated August 4, 1868.

IMPROVEMENT IN CORE-BARS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, RICHARD T. CRANE, of Chicago, in the county of Cook, and State of Illinois, have invented a new and useful Improvement in Core-Supports; and I do hereby declare and make known that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and the letters and figures of reference marked thereon, which form part of this specification.

My said invention relates to a novel core-bar, or support for the core of moulds, used for casting the "return-bends" or elbows of steam and gas-pipes; and it consists in so constructing said supports that two of said "bends" or "elbows" may be cast together in one mould; while, at the same time, provisions are made for allowing the escape of the vapors and gases generated by the molten metal, thus greatly facilitating the casting of said "bends" and "elbows," and insuring perfect castings, as hereinafter fully described and set forth.

To enable those skilled in the art to make and use my invention, I will proceed to describe the same with particularity, making reference in so doing to the aforesaid drawings, in which—

Figure 1 represents a plan or top view of my invention.

Figure 2, a transverse section, at the line *x* in fig. 1.

Figure 3, a similar section, at the line *y* in fig. 1; and

Figure 4, a plan view of the "core," showing the position of the "support" in dotted lines.

Similar letters of reference in the several figures denote the same parts of my invention.

A A represent curved bars, of any suitable metal, connected at their middle points, or thereabouts, by a cross-bar, B, as shown.

These bars are formed in the shape of semi-tubes substantially, so that when two are arranged together, as seen in figs. 2 and 3, and riveted together, as seen in fig. 1, a hollow bar is formed, with a narrow space between the parts, which allows the gases to enter within and be conveyed to an outlet in the sand-core C, as shown at *d*, in fig. 4, whence they escape.

The bars A may be made straight, or in any form to adapt them to the purposes to which they are designed.

Having described the construction of my invention, I will now specify what I claim, and desire to secure by Letters Patent.

I claim the combination of the bars A and cross-bar B, when constructed substantially as and for the purposes specified.

RICHARD T. CRANE.

Witnesses:

W. E. MARRS,
L. L. COBURN.