

(No Model.)

S. FOX.
PRESSED STEEL BEAM.

No. 446,859.

Patented Feb. 24, 1891.

Fig. 1

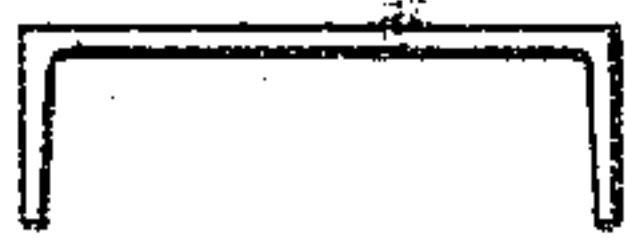


Fig. 2.

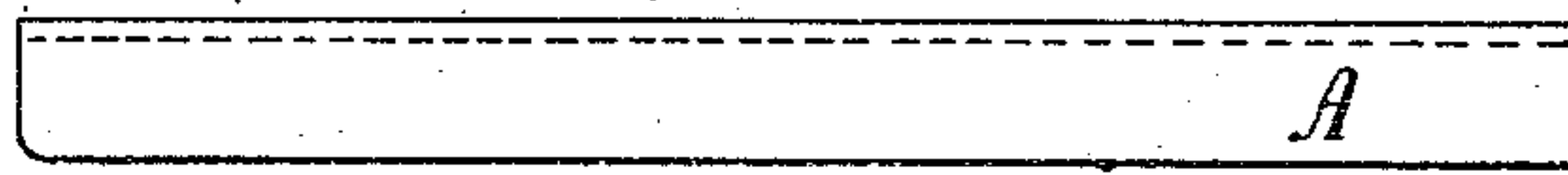


Fig. 3

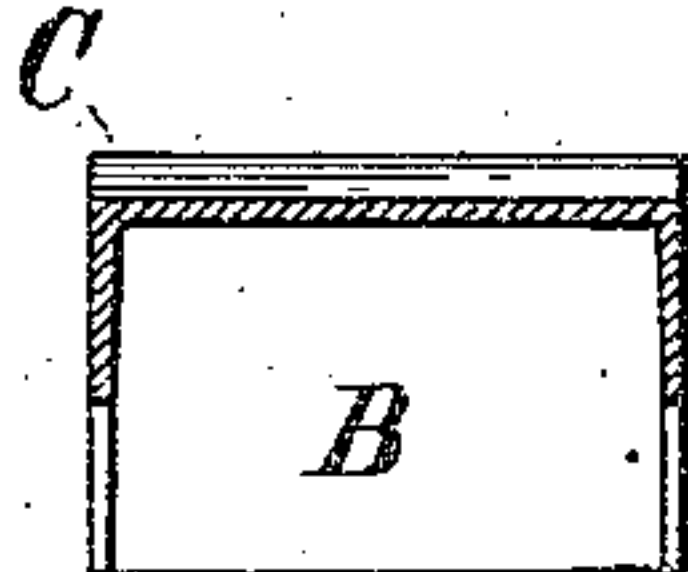


Fig. 4.

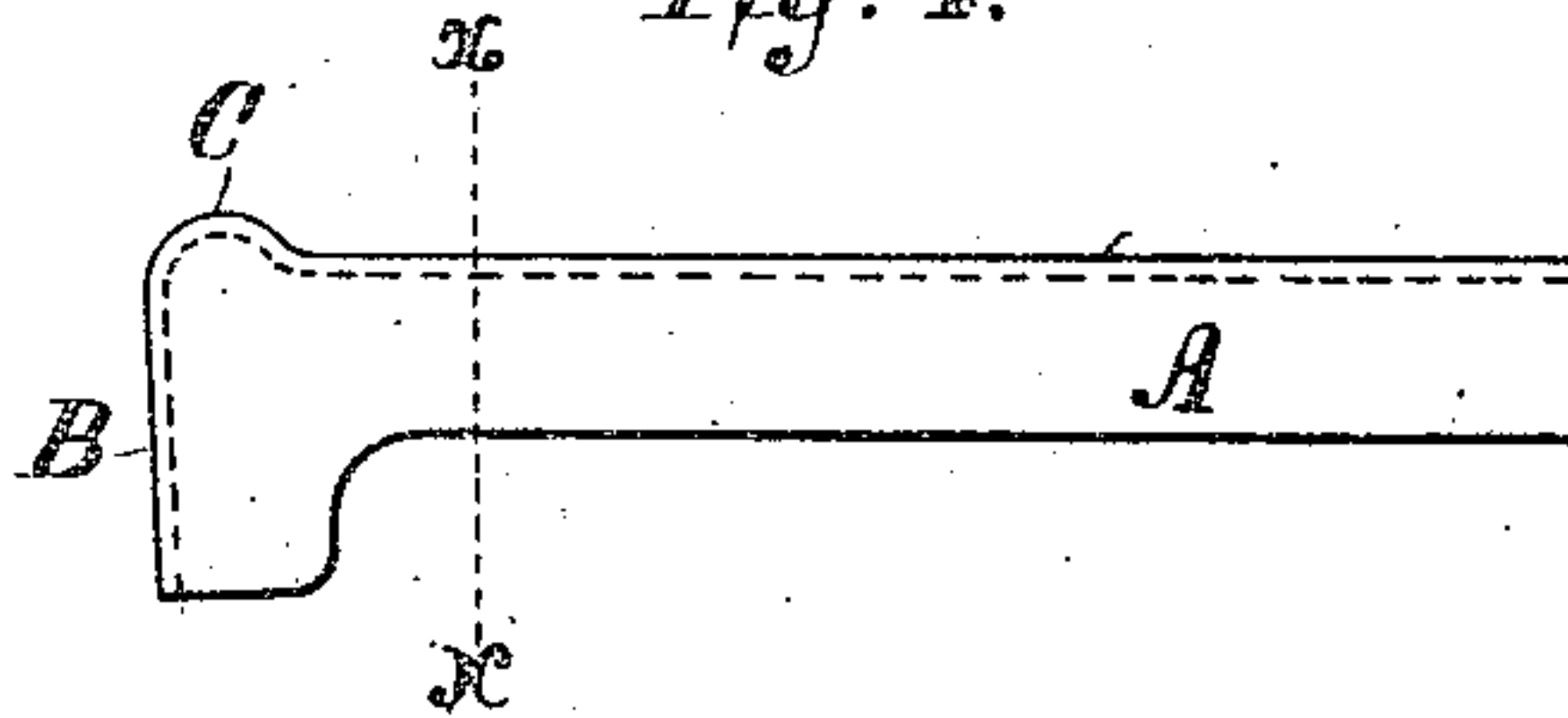
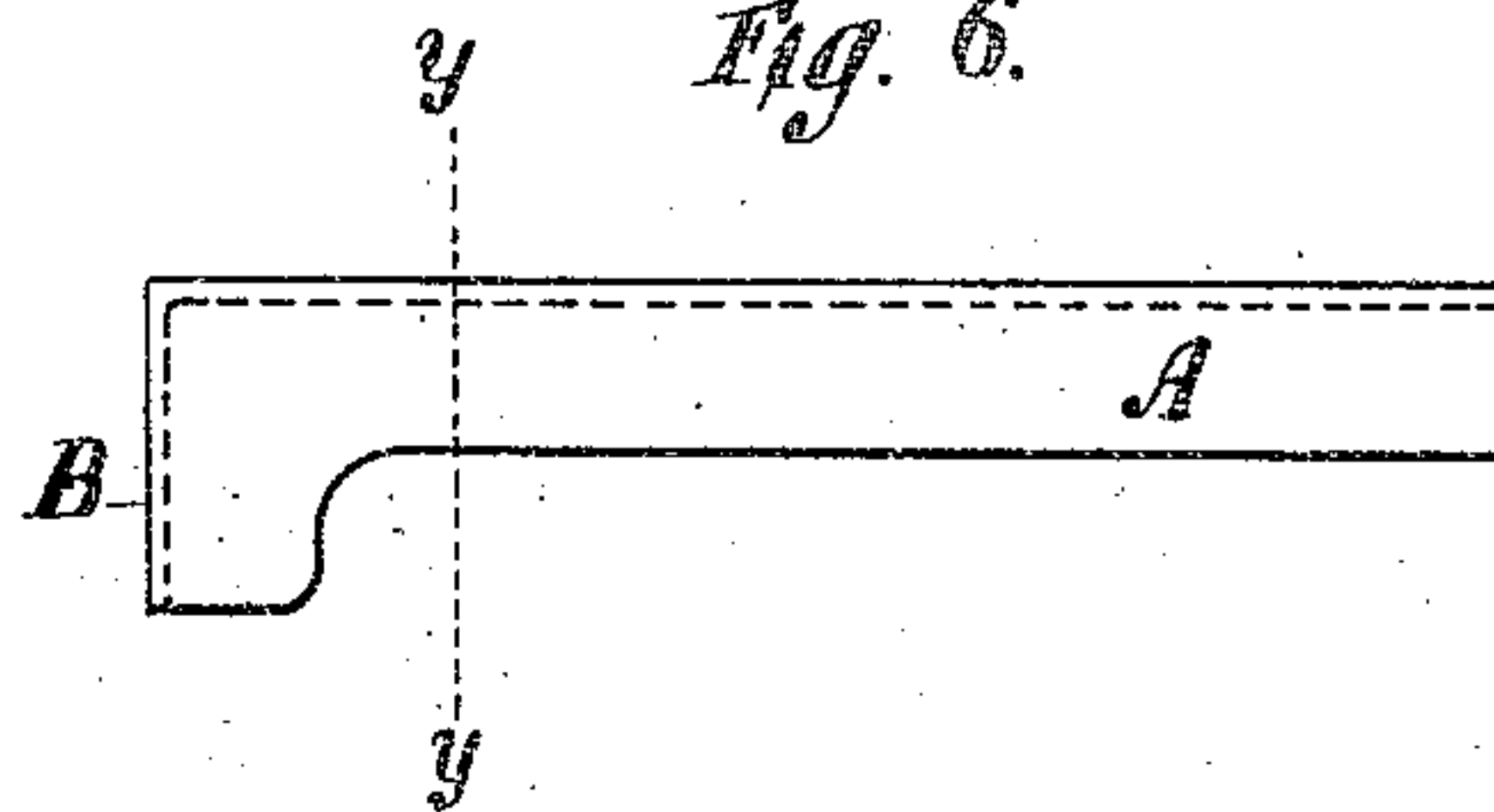


Fig. 5.



Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

SAMSON FOX, OF LEEDS, ENGLAND, ASSIGNOR TO THE FOX SOLID PRESSED STEEL COMPANY, OF CHICAGO, ILLINOIS.

PRESSED-STEEL BEAM.

SPECIFICATION forming part of Letters Patent No. 446,859, dated February 24, 1891.

Application filed December 4, 1890. Serial No. 373,598. (No model.)

To all whom it may concern:

Be it known that I, SAMSON FOX, of Leeds, England, have invented a new and useful Improvement in Pressed-Steel Beams, of which the following is a full, true, and exact description, reference being had to the accompanying drawings.

This invention relates to a new channel-beam having a closed end of a peculiar form. This beam is applicable for structural purposes in architecture, for the frames of vehicles, and generally for the purposes for which channel-beams are employed; and it consists of a beam having a solid bent and forged closed end formed from the open-ended beam itself.

My invention will be readily understood from the accompanying drawings, which represent the different shapes taken by the beam in the process of manufacture.

Figure 1 is an end view of an ordinary channel-beam; Fig. 2, a longitudinal view thereof. This beam is placed upon a suitable mandrel in such position as that the downwardly-bent portion is longer than the distance from the back to the edge of the beam, and in the process of manufacture which I prefer the end is forced down at first into the position shown in Figs. 3 and 4, Fig. 3 being a section through Fig. 4 on the line $x x$. Finally, rectangular dies reduce it to

the condition shown in Figs. 5 and 6, Fig. 5 being a section through Fig. 6 on the line yy . The bulging portion C of the beam is forced down between the dies, so as to make the true rectangular corners shown between B and A in Fig. 6. The bent-down portion B extends beyond the lower line of A, as clearly shown.

The apparatus which I prefer to employ for forming this beam is that for which I have made application for Letters Patent of the United States on the 4th day of December, 1890, Serial No. 373,595.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A channel-beam having closed forged ends formed without weld by pressure from the beam itself, substantially as described.

2. A channel-beam having closed forged ends in a plane at or substantially at right angles to the back of the beam, the opening of the end projecting beyond the open edges of the beam, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMSON FOX.

Witnesses:

S. O. EDMONDS,
WM. A. POLLOCK.