

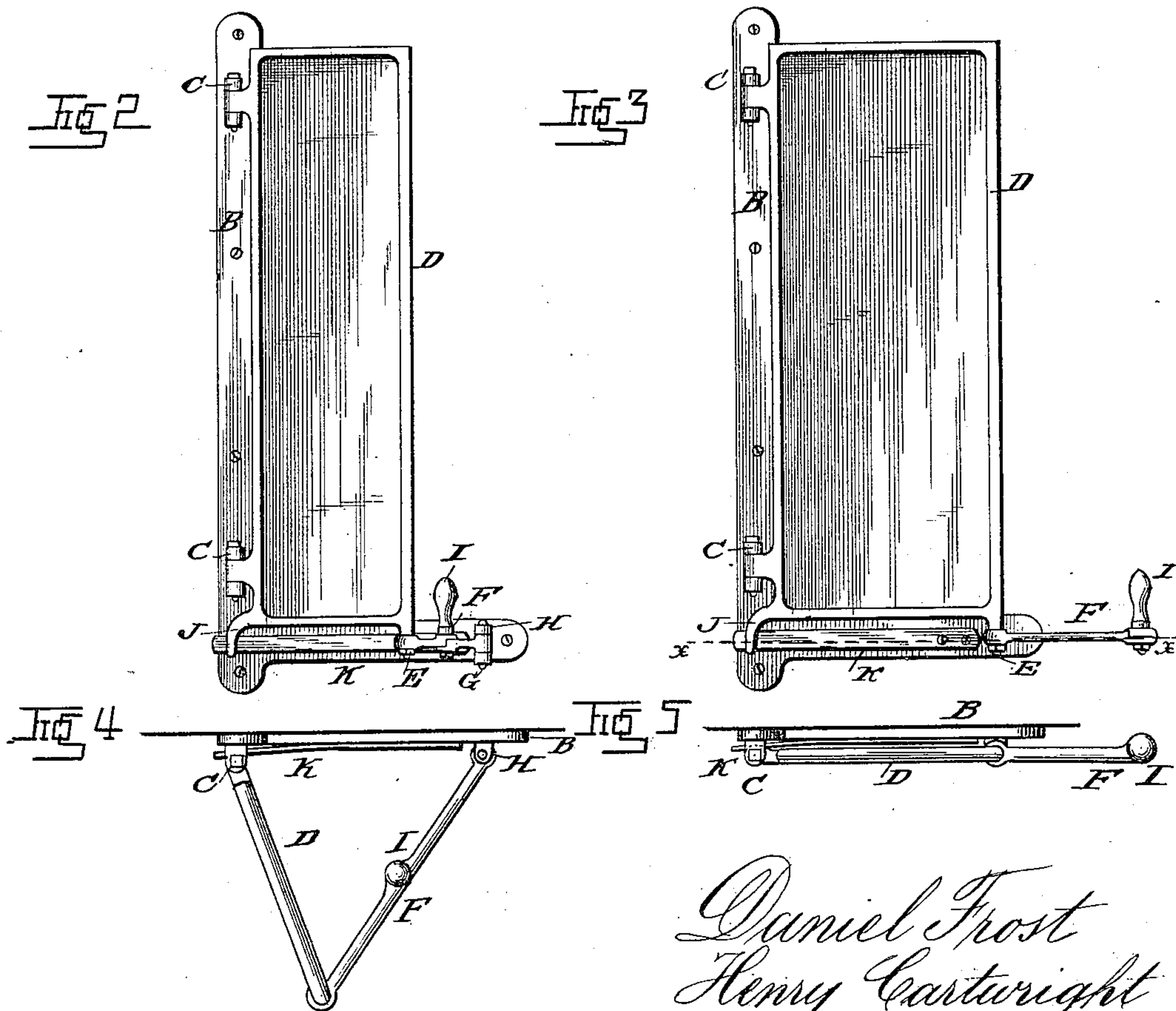
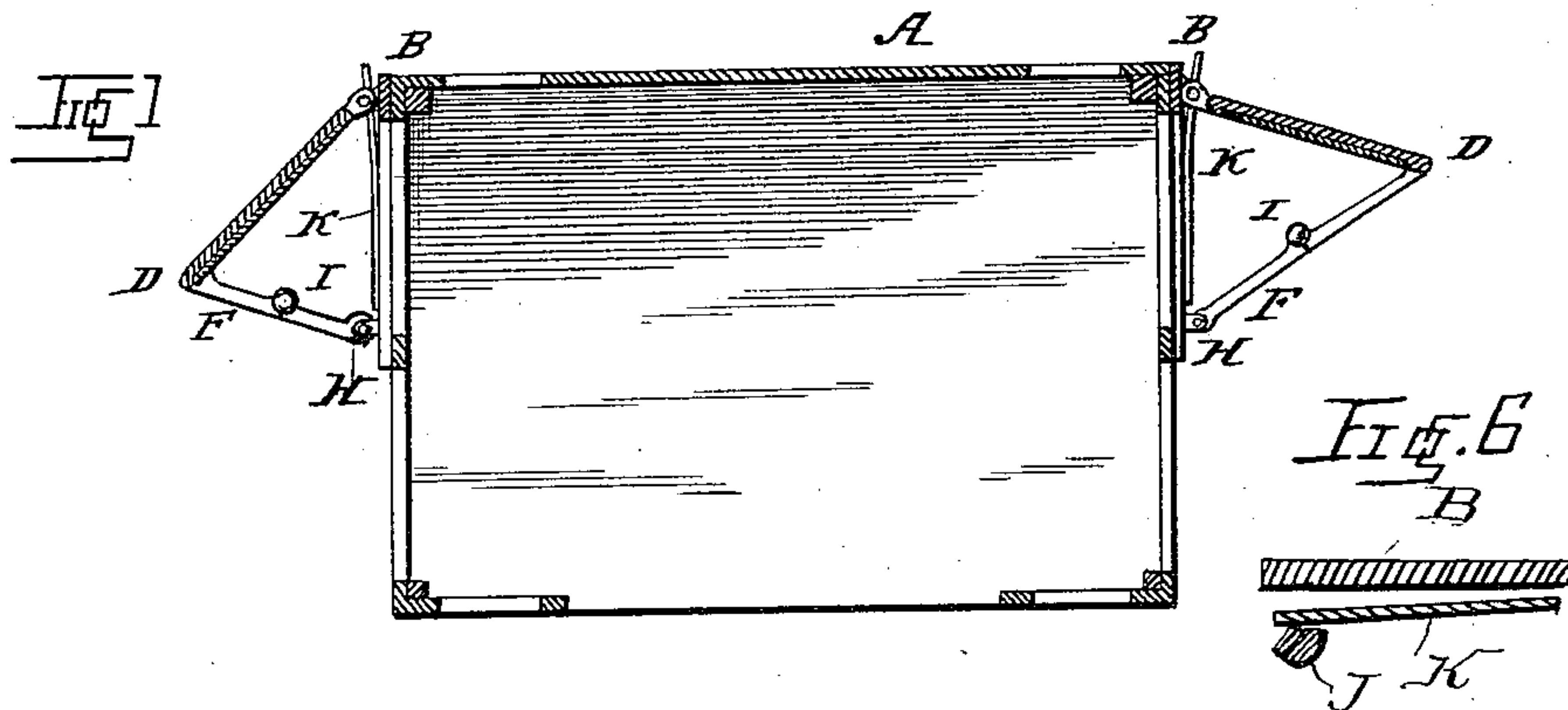
(No Model.)

D. FROST & H. CARTWRIGHT.

REFLECTING MIRROR ATTACHMENT FOR LOCOMOTIVES.

No. 282,623.

Patented Aug. 7, 1883.



WITNESSES,  
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# UNITED STATES PATENT OFFICE.

DANIEL FROST AND HENRY CARTWRIGHT, OF PORTLAND, OREGON.

## REFLECTING-MIRROR ATTACHMENT FOR LOCOMOTIVES.

SPECIFICATION forming part of Letters Patent No. 282,623, dated August 7, 1883.

Application filed May 5, 1883. (No model.)

*To all whom it may concern:*

Be it known that we, DANIEL FROST and HENRY CARTWRIGHT, of Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Reflecting-Mirror Attachments for Locomotives; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a horizontal sectional view of a locomotive-cab, showing the relative position of our improved reflector attachment for locomotives. Fig. 2 is a side view of one of the mirrors extended. Fig. 3 is a similar view of the same closed, and Figs. 4 and 5 are top views of the same extended and closed; and Fig. 6 is a horizontal sectional detail view on line *x x*, Fig. 3.

Similar letters of reference indicate corresponding parts in all the figures.

Our invention has relation to reflecting-mirrors to be attached to a locomotive-cab, to enable the engineer to see to the rear of the train as well as before him; and it consists in the improved construction, combination, and arrangement of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates part of the frame of a locomotive-cab, upon the forward corner-posts of which are fastened two L-shaped metallic bars, B, the vertical parts of the bars being fastened to the sides of the posts, and the horizontal parts extending rearward across the side of the cab. These bars are fastened in such a height relative to the level of the eyes of the engineer that he may easily glance into the mirrors hinged to them, while at the same time the said mirrors will not obstruct his view in front. Each of these bars is provided with two sets of lugs or ears, C, upon its vertical portion, upon which a frame, D, is hinged, which is preferably of metal, and contains the reflecting-mirror. The lower outer corner of the frame is provided with a downward-projecting pin or bolt, E, integral with the frame, to which a rule-jointed brace, F, is hinged, the other end of which is hinged upon a pintle, G, upon a projection, H, upon the end of the horizontal portion of bar B.

A handle, I, projects from the pintle in the

joint of the brace F, by means of which the mirror may be extended by straightening the brace, and closed by folding the same, while a downward-projecting lug, J, projecting from the lower inner corner of the frame, and having two flat sides, bears with one of the said flat sides against the free end of a flat spring, K, fastened at one end to the outer end of the horizontal portion of bar B, and serves to hold the mirror in its position, either extended or closed, in a manner similar to the spring in a common pocket-knife.

The rule-jointed braces for the two mirrors are of a different length, so that the mirrors will be at different angles to the sides of the cab, the one at the right side of the cab, upon which side the engineer generally is, being extended at an angle of about eighty degrees, while the one upon the left side is at an angle of about fifty-seven degrees, by which arrangement the engineer is enabled, in going around curves, by glancing over in the mirror to the left side, to see the rear end of the train and objects to the rear of the same when he cannot see them in the mirror before him.

These mirrors are intended to remain extended while the train is in motion, and may be folded, if the train passes objects so close to the track as to interfere with them, in a moment of time, while they may be extended in another moment ready for use.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

In a reflecting-mirror for locomotive-cabs, the combination of the L-shaped bars B, constructed as described, whereby it may be fastened to the cab, as set forth, and having hinge-lugs C upon its vertical portion, and pintle G and lug H upon the end of its horizontal portion, mirror-frame D, having downwardly-projecting pin E upon its outer lower corner, and downward-projecting lug J upon its lower inner corner, rule-jointed brace F, having handle I, and flat spring K, as and for the purpose shown and set forth.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

DANIEL FROST.  
HENRY CARTWRIGHT.

Witnesses:

IZATUS POTTS POLLOCK,  
WILLIAM CARTWRIGHT.