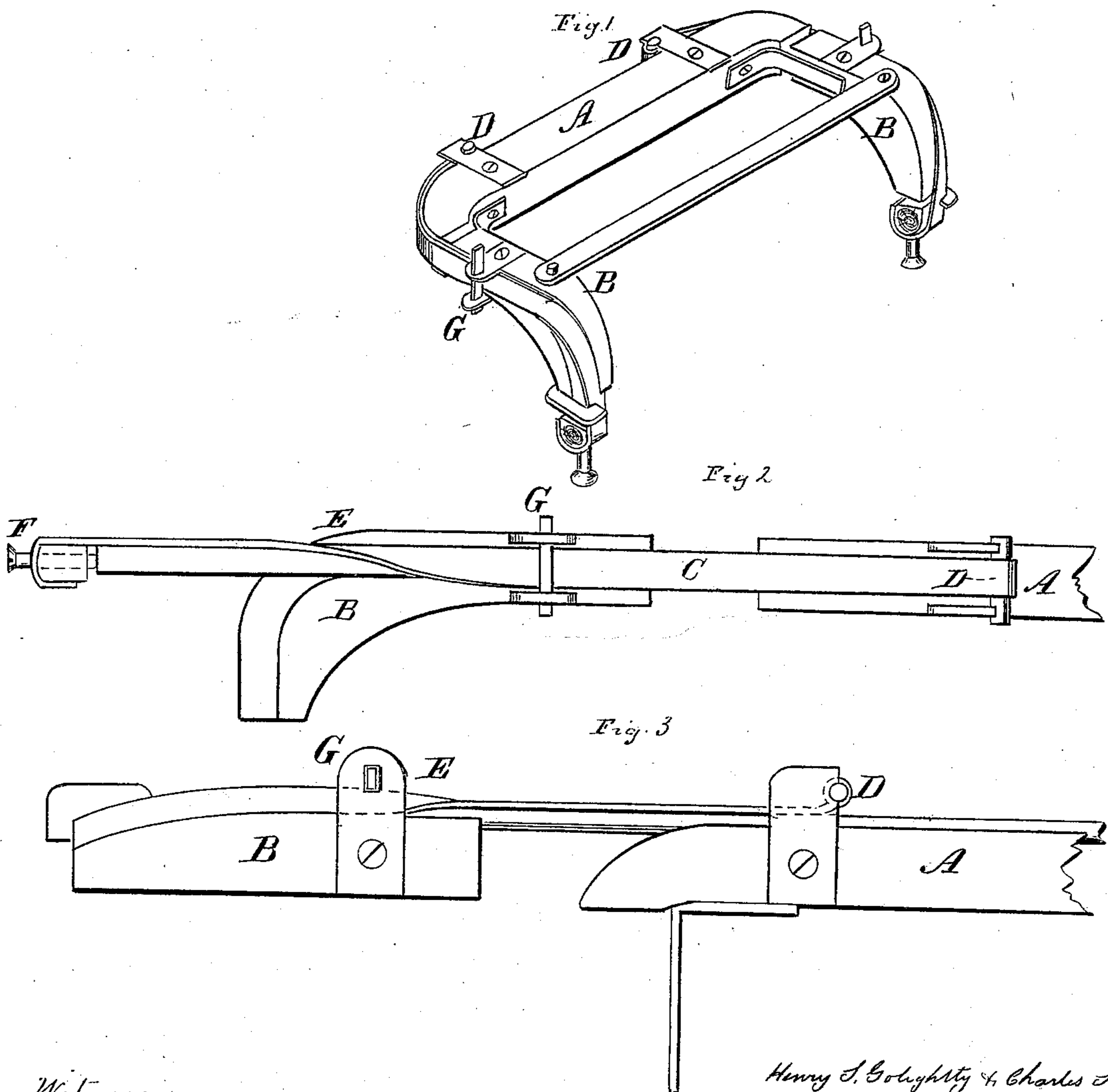


Golightly & Twitchell,
Bending Wood.
No. 93612. Patented Aug. 10, 1869



Witnesses

J. H. Shumway
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By their Attorney

John E. Earle

United States Patent Office.

HENRY S. GOLIGHTLY AND CHARLES S. TWITCHELL, OF NEW HAVEN, CONNECTICUT,
ASSIGNORS TO NEW HAVEN FOLDING-CHAIR COMPANY, OF SAME PLACE.

Letters Patent No. 93,612, dated August 10, 1869.

IMPROVEMENT IN BENDING-MACHINE.

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

To all whom it may concern:

Be it known that we, HENRY S. GOLIGHTLY and CHARLES S. TWITCHELL, of New Haven, in the county of New Haven, and State of Connecticut, have invented a new Improvement in Machine for Bending Carriage-Seat Rails; and we do hereby declare the following, when taken in connection with the accompanying drawings, and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of the former with the rail bent thereon;

Figure 2, a rear view of the back and end for the first operation; and in

Figure 3, a top view of the same.

This invention relates to an improvement in the apparatus commonly used for bending carriage-seat rails, that is, the rail which forms the top of the carriage-seat, which requires to be bent so that from a single piece, the back and the two ends turned down to the seat are formed; the angles are all formed by a short bend in the rail.

In the common apparatus for bending, the rail is invariably, more or less, split at these short bends, which, after the rail is removed from the bending-machine, requires to be glued and fitted up, causing no inconsiderable amount of labor, and after the carriage is finished, the splits frequently reopen.

By our improvement the rail is bent with less difficulty and without the least liability to split or check; to this end,

The invention consists in grasping the rail firmly within the holder, and clamping it to the parts of the former before bending, so that the angles or short bends are protected by a metallic covering, which prevents the splitting or checking of the rail.

To enable others skilled in the art to construct and use our improvement, we will proceed to describe the same, with reference to the accompanying drawings.

A is the back, and B, the two ends of the former, each detachable, the one from the other.

C is a strap of metal, provided with a link, loop, or other connection, D, so as to be attached to or de-

tached from the back of the former, and so that when so attached, it will lie along close to the surface of the rail to be bent, and between this connection and the other end, a twist is formed in the metal, so as to cover the rail at the turn down of the ends, as at E, and the end of the strip is provided with a clamping-screw, F, so that when the rail to be bent is laid upon the former, and the strip of metal connected to the former, as at D, the clamping-screw will press against the end of the rail, as seen in fig. 2, then the strip and rail are clamped or keyed to the part B, as at G. This firmly secures the rail to the two parts, A and B. Then the first bend or angle between the back and end is made by turning the part B, as from the position in fig. 2, to that in fig. 1, in which turning, the metal strap bears firmly upon every part of the rail at the angle, so that by no possibility can a check or crack occur.

Next, the end of the rail is bent down over the part B, as from the position in fig. 2, to that in fig. 1, and clamped thereon, until the rail is dry, having been first prepared in the usual manner by steaming. When sufficiently dry, it is removed from the apparatus, and retains its form.

By this process, it will be observed that the strap C securely clamps the rail, and protects the angles, so as to give the rail no opportunity of breaking away or splitting.

We are aware of the patent of John L. Field, May 10, 1859, and do not wish to be understood as claiming anything contained in the said patent.

Having fully described our invention,

What we claim as new and useful, and desire to secure by Letters Patent, is—

The apparatus herein described, consisting of the back A and ends B, with the strap C, constructed so as to be bound together, and operate in the process of bending, substantially as herein set forth.

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