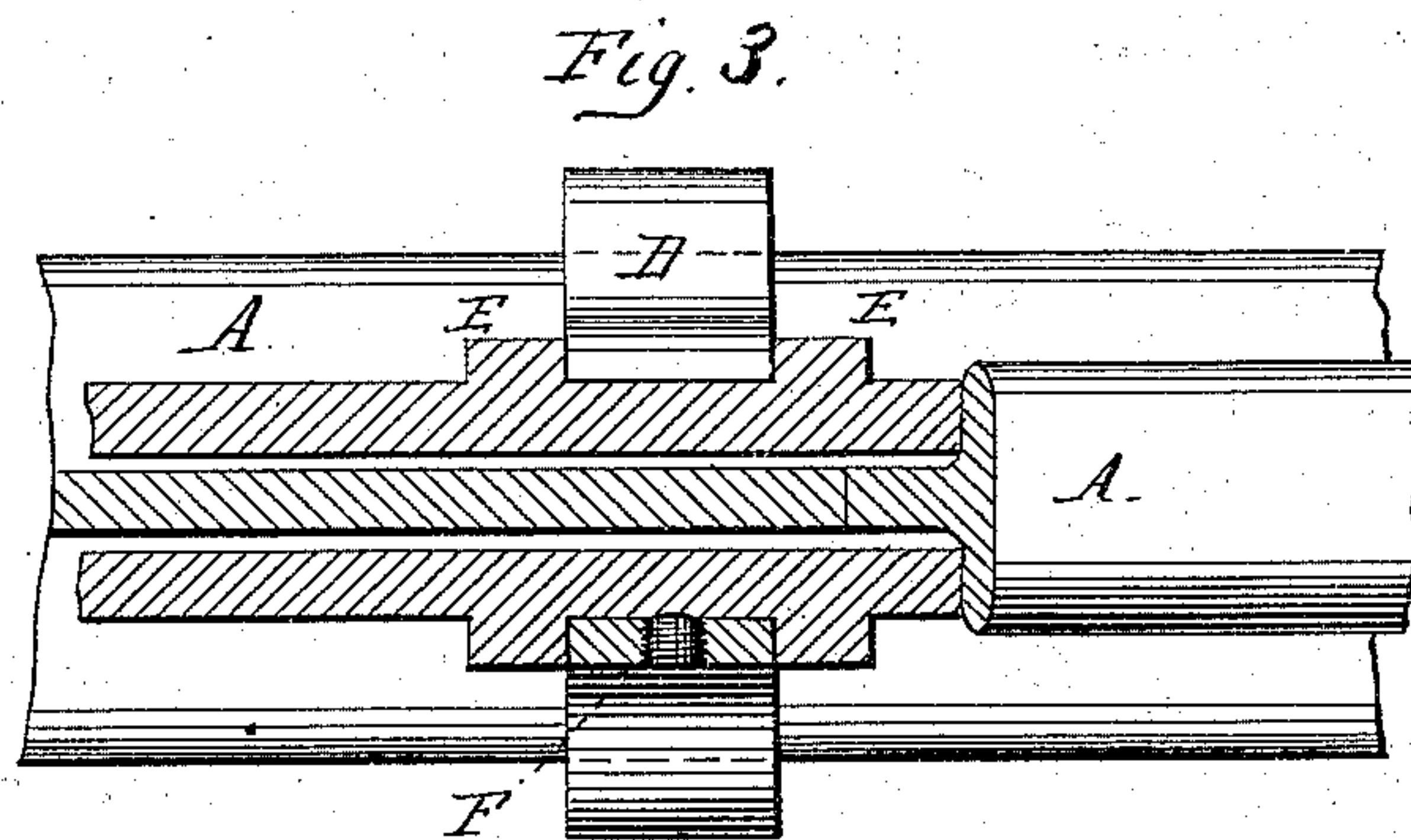
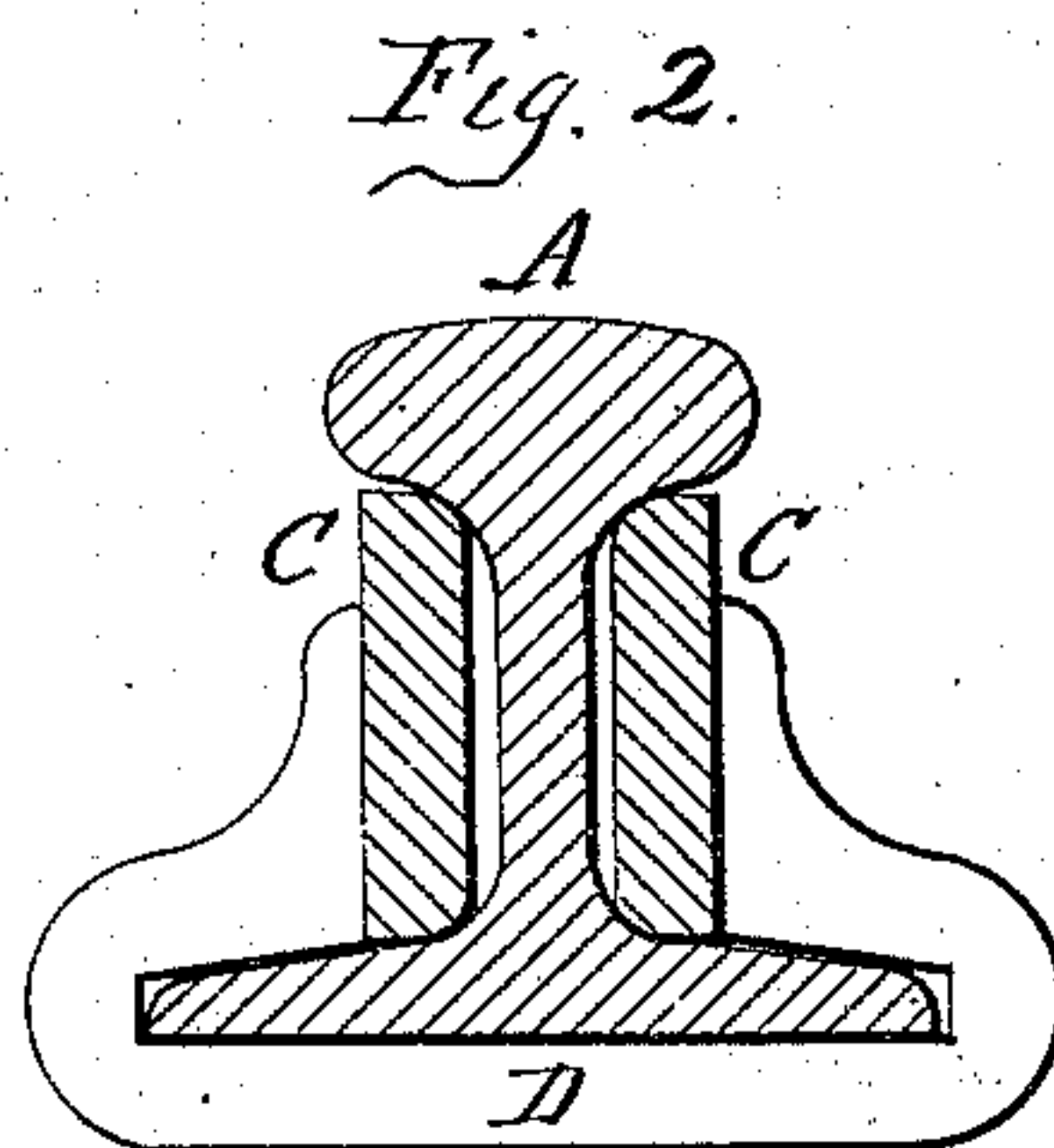
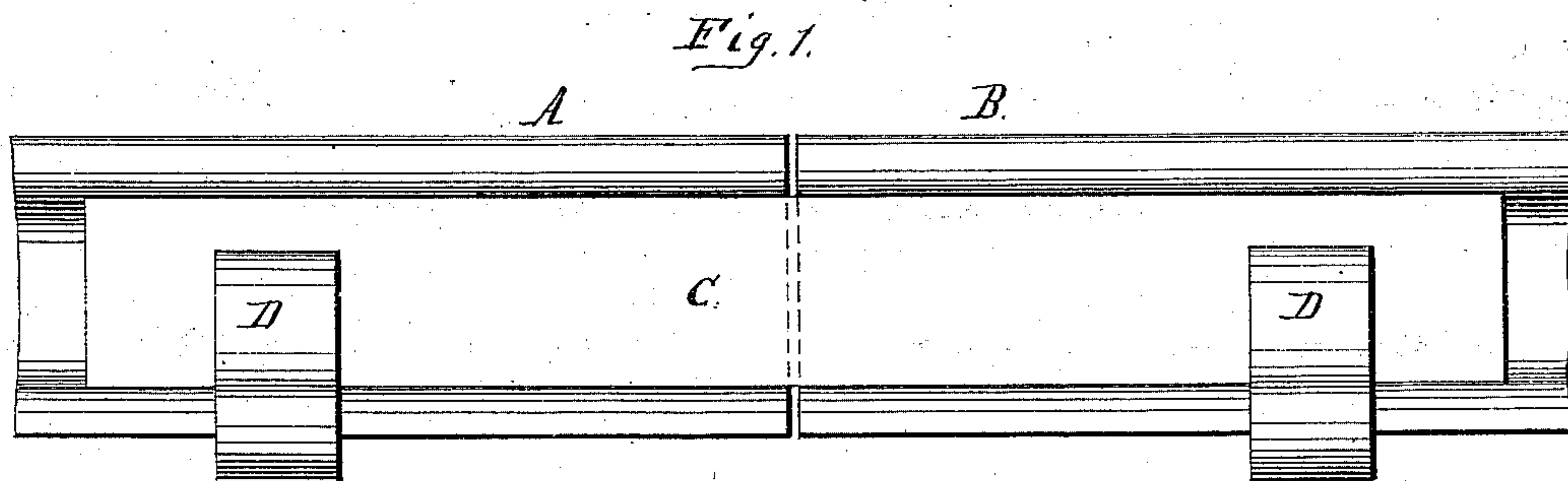


G. H. HALL & W. P. HALL, Jr.
Railroad-Joints.

No. 152,745.

Patented July 7, 1874.



Witnesses:
H. P. Dew
W. E. Chaffee

Inventors
George H. Hall
Willard P. Hall Jr
by Stansbury & Munn
their attys -

UNITED STATES PATENT OFFICE.

GEORGE H. HALL AND WILLARD P. HALL, JR., OF ST. JOSEPH, MISSOURI.

IMPROVEMENT IN RAILROAD-JOINTS.

Specification forming part of Letters Patent No. **152,745**, dated July 7, 1874; application filed May 19, 1874.

To all whom it may concern:

Be it known that we, GEORGE H. HALL and WILLARD P. HALL, Jr., both of the city of St. Joseph, county of Buchanan and State of Missouri, have invented an Improvement in Joint-Fastenings for Railroad-Rails; and we do hereby declare the following to be a full and correct description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation. Fig. 2 is a cross-section; and Fig. 3 is a horizontal section of a portion, showing modifications.

The object of our invention is to securely and firmly hold and support the splice-bars connecting the track-rails of railways by means of a solid iron supporting-clamp of the proper shape to pass over the ends of the rail, fitting snugly its foot, and embracing with its jaws the splice-bars, as hereinafter described.

In the drawings, A and B represent the ends of two adjoining track-rails; C C, the splice-bars for connecting the same, and D D the clamps for firmly holding and securing the splice-bars in place. These clamps are made solid, of wrought or cast iron, though the former is preferable. They are of the proper form to extend around and fit closely the foot of the rail, with their jaws of the right length to reach and embrace the splice-bars, as clearly shown in Figs. 1 and 2, and are applied at such distance from the ends of each rail and its splice-bars as may be desired. The splice-bars are to fit the rails in the same manner as those now in use, and may be of any length or thickness required, but are not to be punched. The clamps are slipped over the ends of the rails, the splice-bars inserted, the rails brought together, and the whole adjusted,

as shown in Fig. 1. Then the jaws of the clamps are tightened with the blow of a hammer against one of the jaws, the other being supported by another hammer; and in like manner they can be instantly tightened by the trackmen, if discovered to be loose.

If desired, it is obvious that one or both of the splice-bars may have indentations on its sides or have ribs E rolled with it in any suitable manner for holding the bars and clamps in the same relative position, as shown in Fig. 3; or the clamps may be secured in place by a set-screw, F, as shown in the same figure; or they may be welded or cast in one piece with one of the bars; or they may be connected by a plate of iron or steel beneath the foot of the rail. But these devices are not necessary, as we have found in practice that there is little or no slipping of the bars and clamps, and that a blow of the hammer on the jaws of the latter is all that is required at any time to firmly secure them together.

The joint thus made is strong and durable, as the bars are not weakened by being punched, and the clamps are solid and close-fitting.

Having thus described our invention, what we claim is—

In combination with the adjoining ends A B of the rails, the splice-bars C C and solid iron clamps D D, constructed as described, and for the purpose set forth.

The above specification of our said invention signed and witnessed at St. Joseph, Missouri, this 16th day of May, A. D. 1874.

GEORGE H. HALL.
WILLARD P. HALL, JR.

Witnesses:

H. E. BARNARD,
JNO. DONIPHAN.