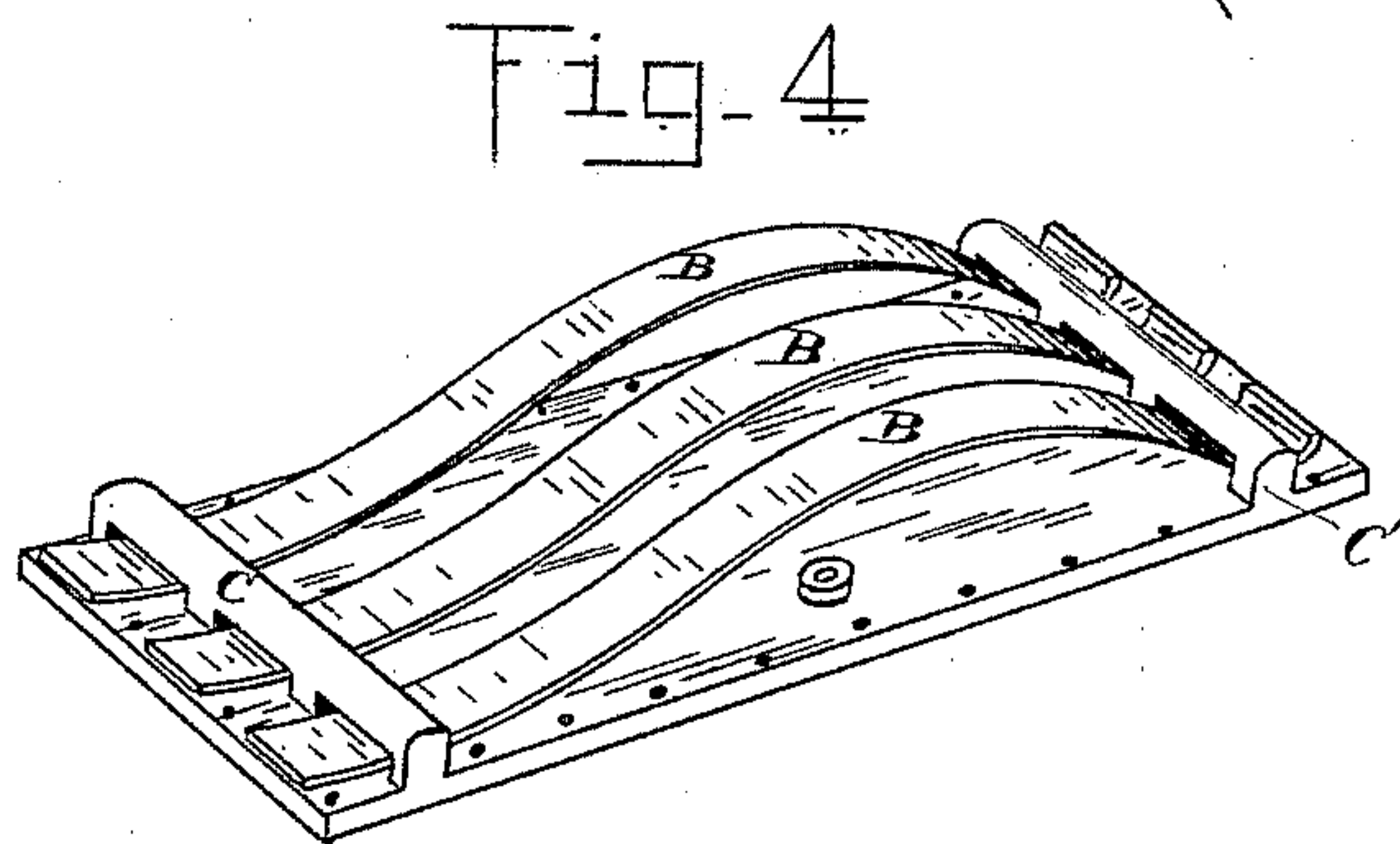
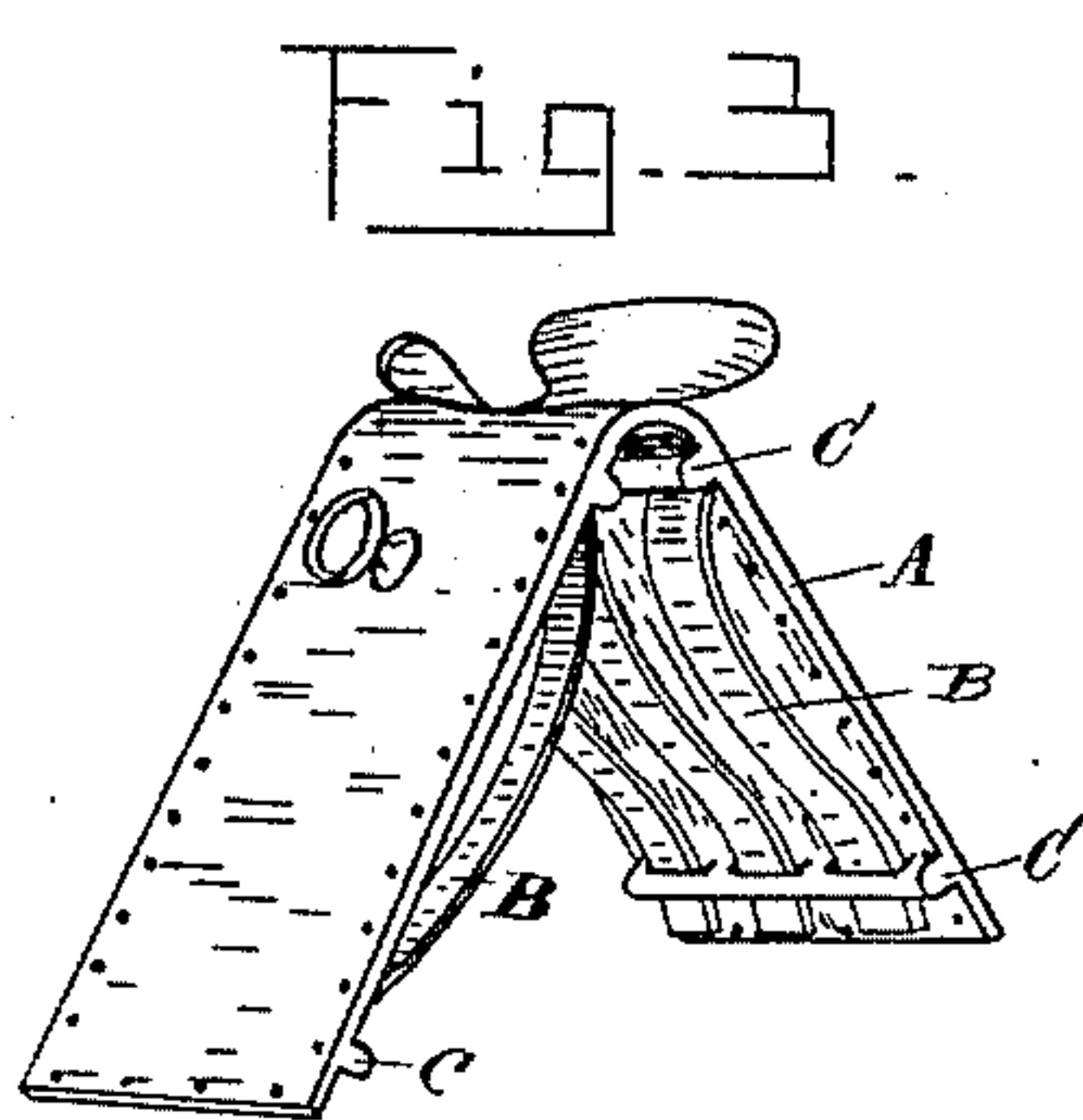
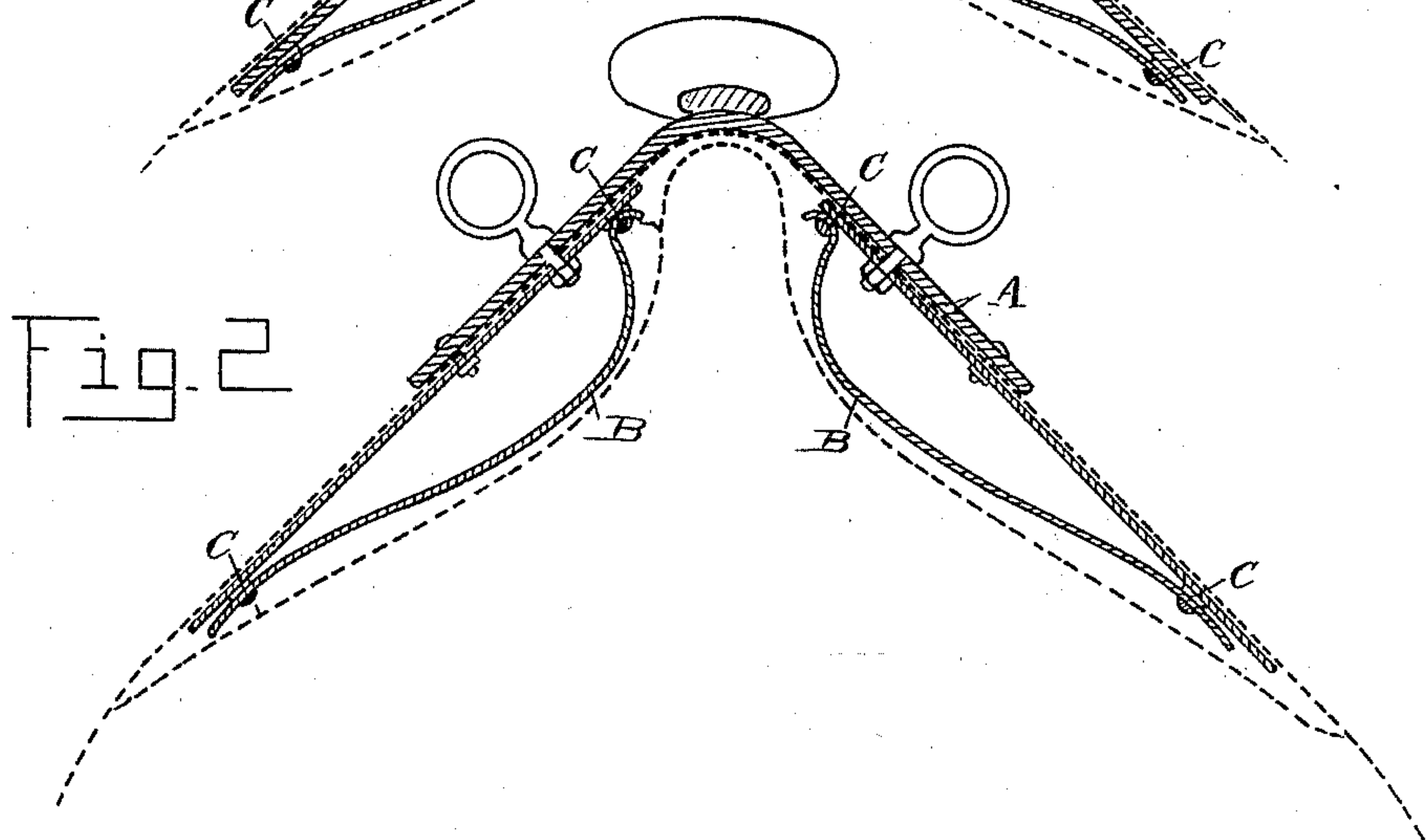
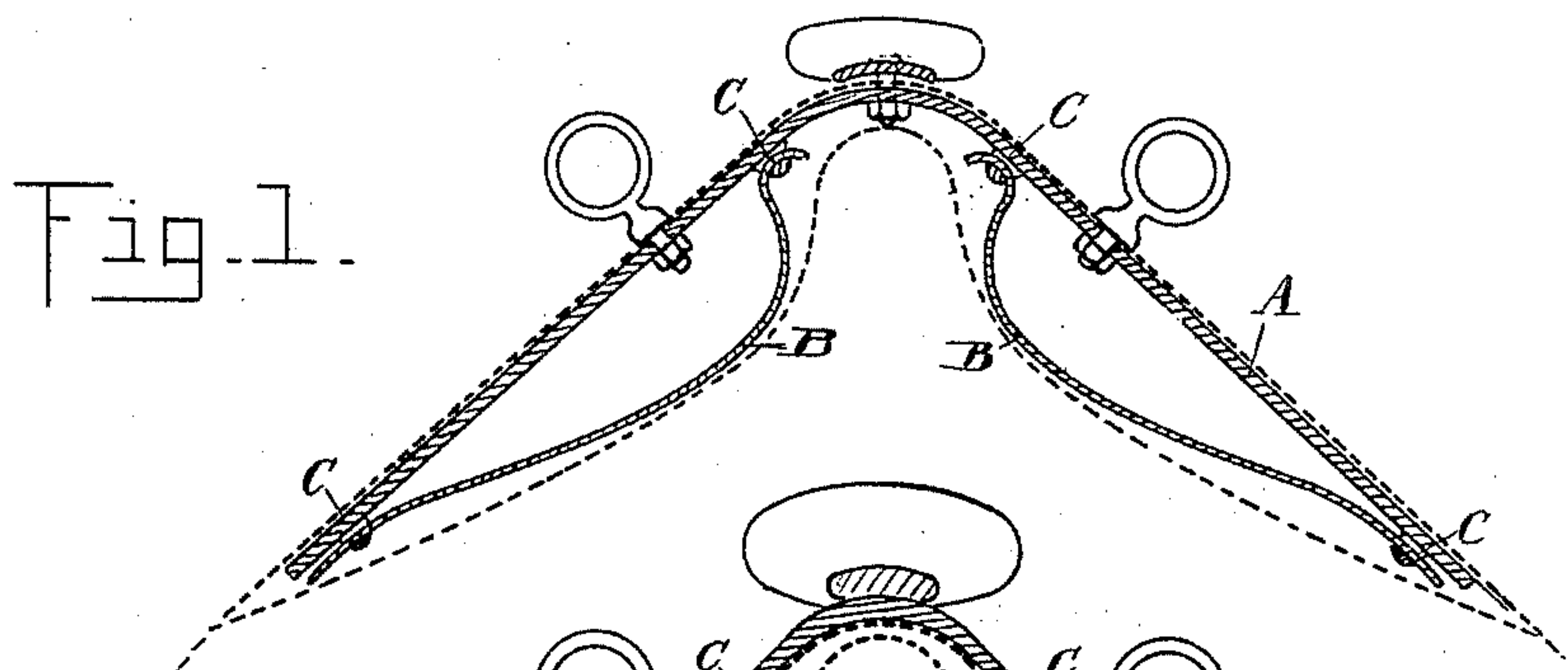


(No Model.)

J. D. BRAUN.  
HARNESS SADDLE.

No. 413,165.

Patented Oct. 22, 1889.



Witnesses:  
*Geo. A. Gregg.*  
*J. Paul Mayer*

Inventor:  
J. David Braun  
By *Thos. S. Sprague & Son*  
Att'y



# UNITED STATES PATENT OFFICE.

JOHN DAVID BRAUN, OF DETROIT, MICHIGAN.

## HARNESS-SADDLE.

SPECIFICATION forming part of Letters Patent No. 413,165, dated October 22, 1889.

Application filed April 25, 1889. Serial No. 308,548. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN DAVID BRAUN, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Saddle-Pads, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in harness-saddles; and the invention consists in the peculiar construction of the saddle-pads, all as more fully hereinafter described, and shown in the accompanying drawings, in which—

Figures 1 and 2 are vertical central sections of harness-saddles of the ordinary construction, and to which my improved pads are applied. Fig. 3 is a detached perspective view of the pads as constructed in Fig. 1, and Fig. 4 is a detached perspective view of one of the pads as shown in Fig. 2.

The harness-saddle shown in Fig. 1 is of that known construction in which there is a saddle-tree A, made integrally in one piece, cast or of sheet metal, the one shown in Fig. 2 being made in another well-known manner—that is, with the saddle-tree A, consisting of a central piece and side pieces, secured thereto.

My improved pads apply equally to either kind, as well as to the various modifications thereof in present use, and their construction is as follows: From suitable spring metal, preferably galvanized iron, brass, or other metal not liable to rust, I construct the curved leaf-springs B, the curvature of which corresponds to the desired face of the finished pad. These springs I secure to the necessary number to form the width of the pad upon a suitable foundation-plate, or preferably upon the under side of the wings of the saddle-tree itself. To this end I form on the foundation-plate or saddle-tree the loops C, which may be cast therewith or formed thereon in any suitable manner. Into these loops the ends of the springs are engaged and held in position by bending one end of the springs over the cross-bars of the loops. Thus the springs are free to yield under pressure, but are held in position by the loops to prevent lateral or longitudinal displacement. The pads may

then be finished in any desired manner, covering them directly with leather or other desirable fabric, or by first putting a slight thickness of suitable padding material over the springs.

In supplying the trade with my improved metallic pads I confine my invention to the different forms, styles, and modes of constructing pads in present use; and this I can readily do, securing, if necessary, the springs to a foundation-plate, which may be secured to the under side of the saddle-tree.

I am aware that it has been proposed to provide a harness-saddle with a spring-plate under each wing of the saddle-tree, and do not seek to cover such construction. I deem it important that a plurality of springs B be employed under each wing, each self-adjusting, independent of the other, whereby the pad may readily accommodate itself to the horse, and will be adapted for different horses. I also deem it important that the springs be connected to the foundation-plate without return-bends, this arrangement forming a more comfortable pad, and the springs are not so liable to break as where they are formed with return-bends.

It is immaterial at which end the springs are secured to the loops, provided they are secured all alike. It is an advantage, however, to secure the springs detachably, so that they may be reversed in position if found more suitable to the shape of the back of the animal.

What I claim as my invention is—

1. The combination, with a saddle, of a plurality of springs arranged side by side, each spring having one of its ends pointing toward the center of the saddle and fixedly connected with said saddle, and the other loosely engaged with a loop connected with the saddle so as to be free to expand toward the end of said saddle, substantially as described.

2. In a pad for harness-saddles, the combination, with a foundation-plate, of a plurality of curved metal leaf-springs B, secured thereto with their ends extending in opposite directions, free to expand each independent of the other in the longitudinal direction of the pad by means of loops C, into which the springs are engaged loosely at one end and

rigidly secured at the other end, substantially as described.

3. As an improved article of manufacture,  
a skeleton harness-saddle pad, consisting of  
5 a metallic saddle-tree section provided at its  
under side with two rows of loops C at the  
ends of the pad, and of a plurality of metallic  
leaf-springs curved in the form of the pad  
and secured to these loops, with their ends  
10 extending in opposite directions, free to ex-

pand at one end, each independent of the  
other, substantially as described.

In testimony whereof I affix my signature, in  
presence of two witnesses, this 2d day of  
March, 1889.

J. DAVID BRAUN.

Witnesses:

J. PAUL MAYER,  
GEO. A. GREGG.