

(No Model.)

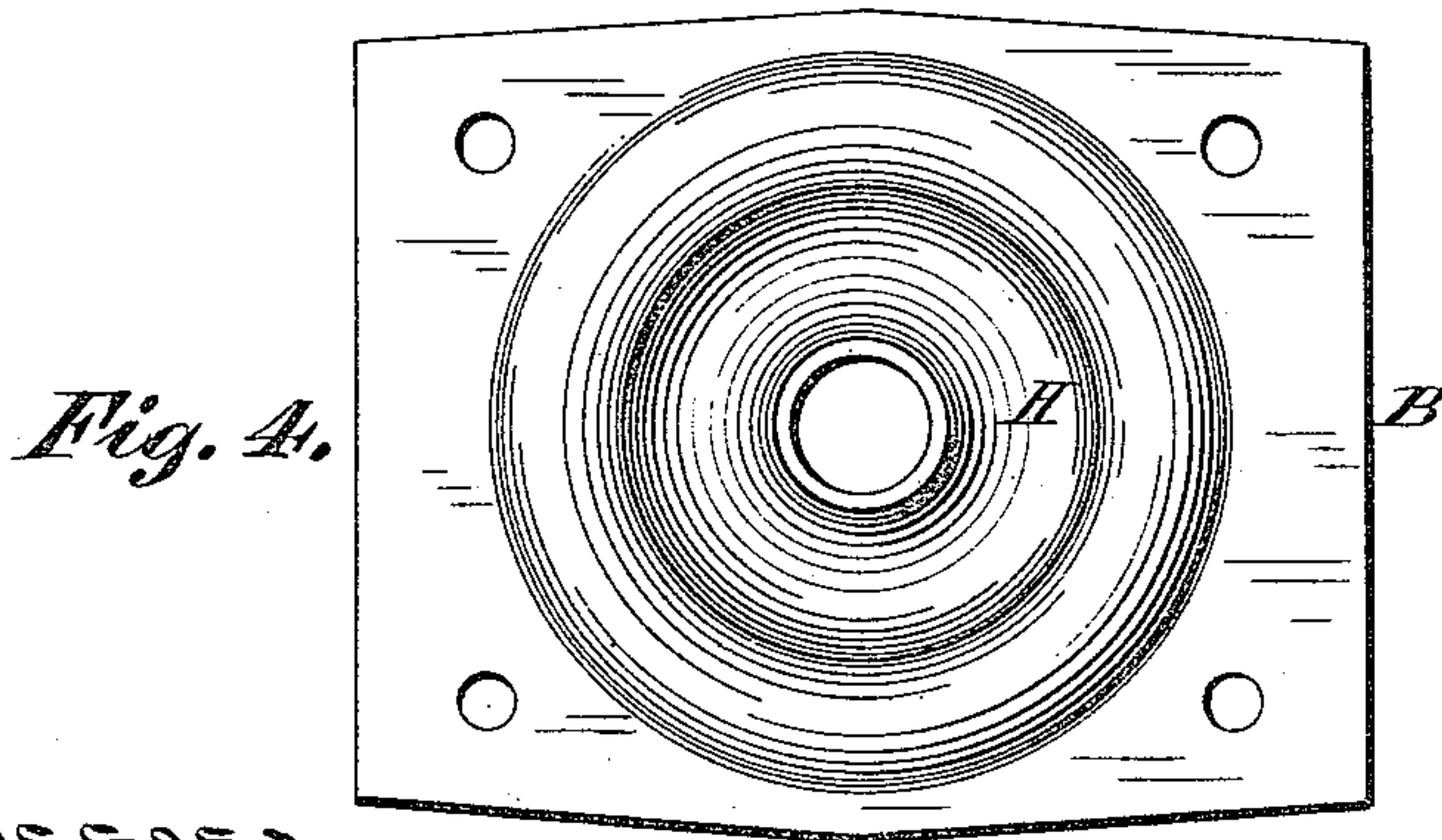
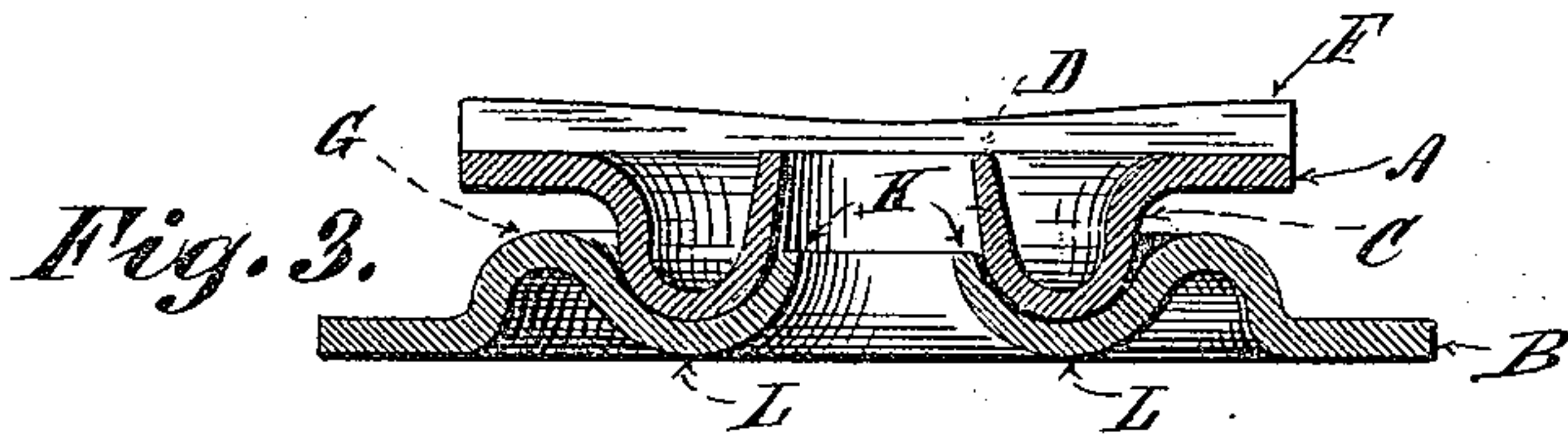
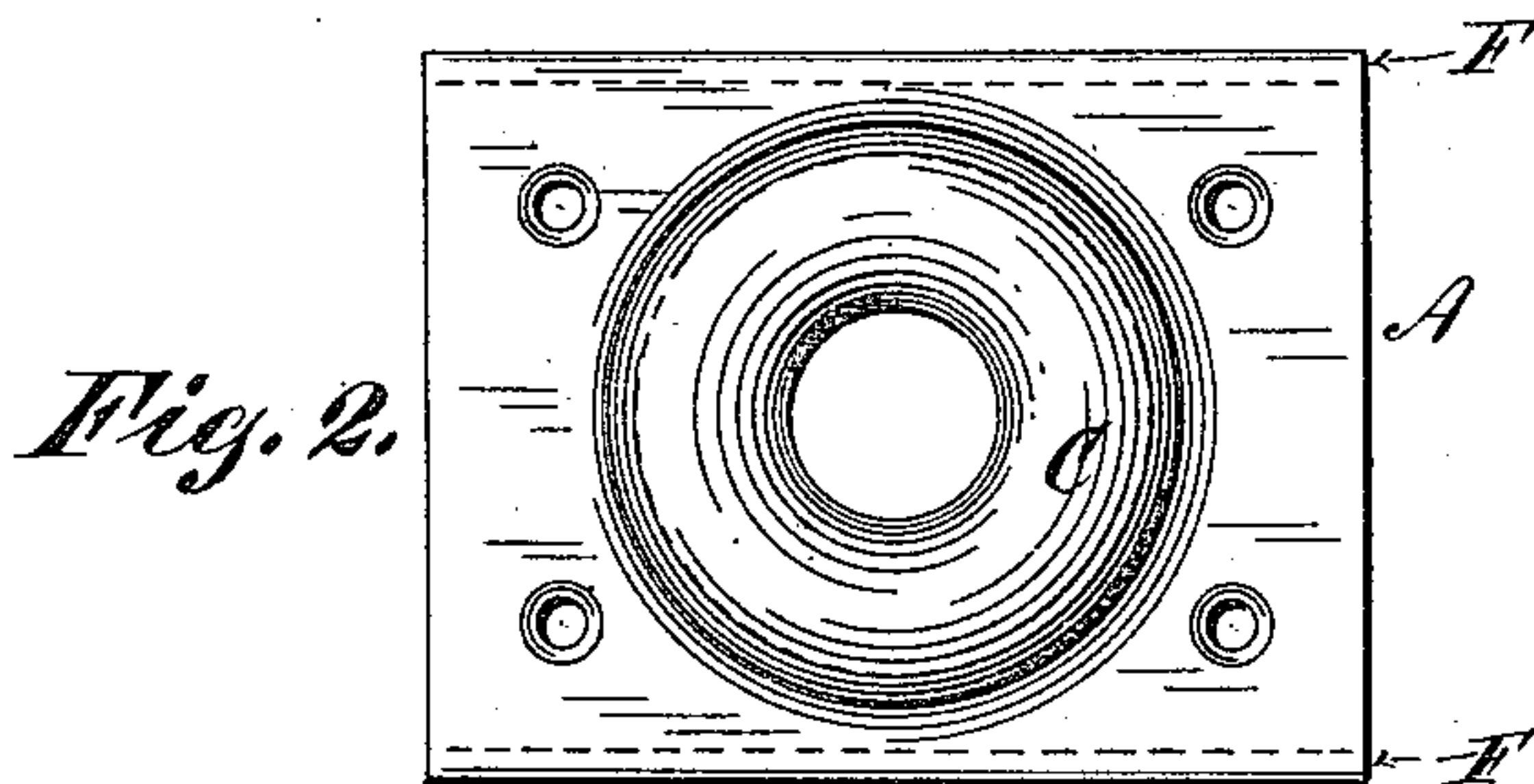
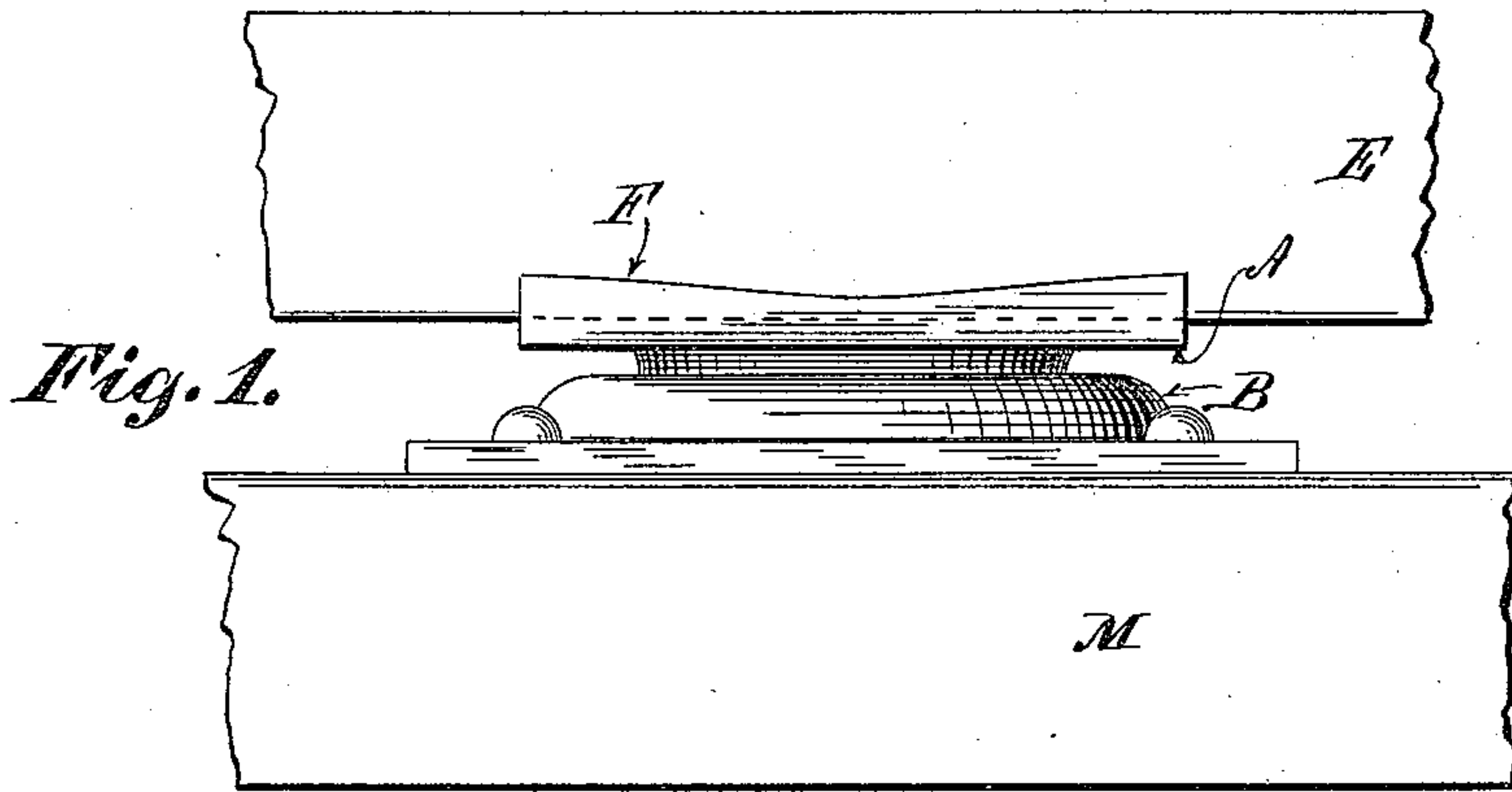
2 Sheets—Sheet 1.

W. VOSS.

CENTER BEARING PLATE FOR VEHICLES.

No. 442,561.

Patented Dec. 9, 1890.



Witnesses:  
Geo. H. Miatt  
Jm A. Pollock

Inventor:  
William Voss,  
By his Attorney  
E N Disbana

(No Model.)

2 Sheets—Sheet 2.

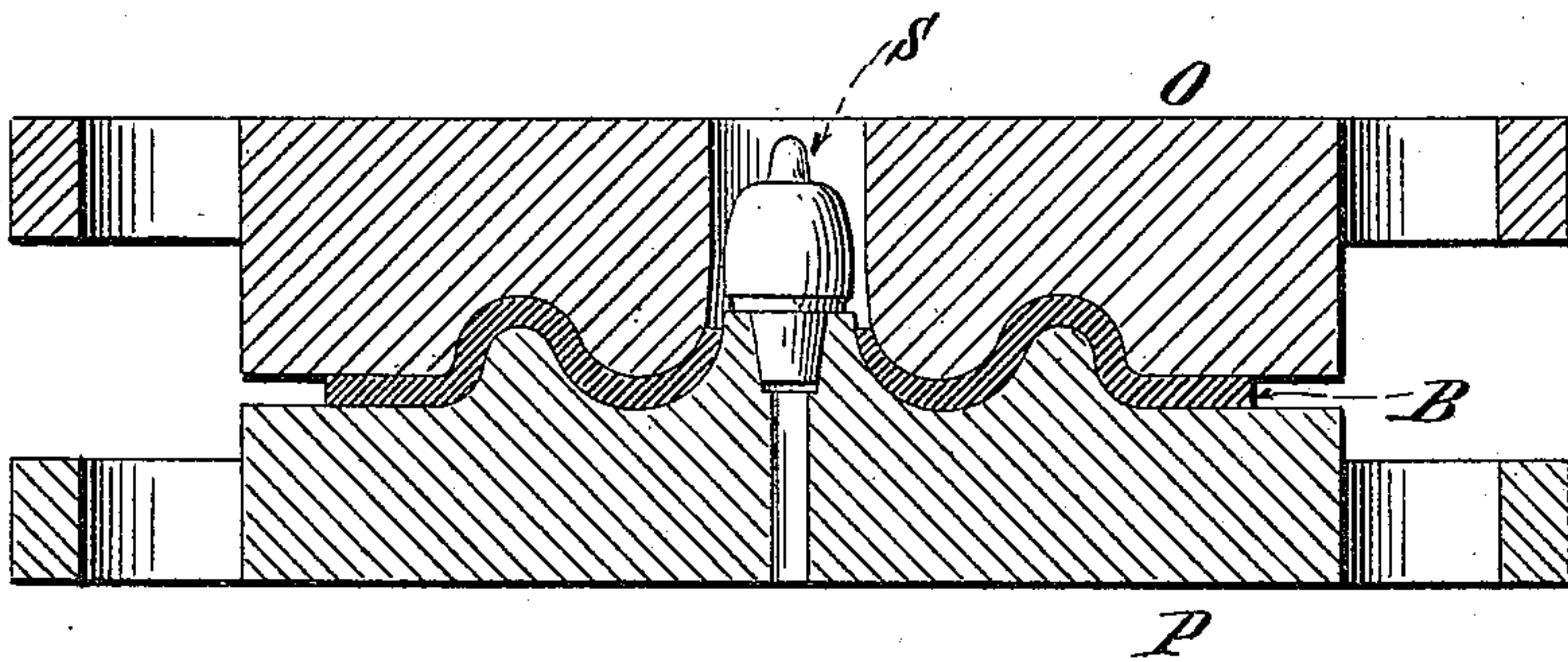
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*Fig. 5.*



*Fig. 6.*



Witnesses:

Geo. H. Miatt  
Hm A. Pollock

Inventor:

William Voss  
By his Attorney  
E N Dickerson



# UNITED STATES PATENT OFFICE.

WILLIAM VOSS, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE FOX SOLID PRESSED STEEL COMPANY, OF SAME PLACE.

## CENTER-BEARING PLATE FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 442,561, dated December 9, 1890.

Application filed June 2, 1890. Serial No. 354,020. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM VOSS, of Chicago, Cook county, State of Illinois, have invented a new and useful Improvement in  
5 Center-Bearing Plates for Moving Vehicles, of which the following is a full, true, and exact specification, reference being had to the accompanying drawings.

This invention relates to pressed-steel center-plates; and the object of the invention is to provide center-plates capable of having rocking or rolling motions over each other, and at the same time supported at two or more points upon the base-line support of  
15 the plates.

My invention will be readily understood from the accompanying drawings, in which—

Figure 1 represents the bearing-plates in position; Fig. 2, a bottom view of the upper  
20 plate; Fig. 3, a cross-section through Fig. 1 on the plane of the paper; Fig. 4, a top view of the bottom plate; Fig. 5, a view of the plate in process of manufacture; and Fig. 6, a view of the blank from which it is made.

25 A represents the upper plate, and B the lower plate. It is obvious that these plates could be reversed, though I prefer the arrangement shown. In both cases they are made of pressed steel and consist of one piece of metal.

30 The upper plate A has its inner annular portion pressed down, so as to be U-shaped in radial section, the inner leg of the U being turned up, as shown at D, and carried back to the base line or support of the beam E, which may be of metal or wood of any convenient shape, and which rests between the  
35 lugs or projections F, formed on the sides of the upper plate A. The lower rounding curve C of the U forms the bearing-surface of the upper plate. The lower plate B is pressed in  
40 inner annular portion into an S-shaped radial section having an upper hollow H adapted to engage with the projection C of the upper plate. The inner lips K of this plate B  
45 are carried up within the internal opening of the plate A, while the S-shaped portion is

bent down, as at L, so as to rest upon the lower beam M and be supported thereby.

The plates may be bolted to the beams, as shown.

In making these plates dies O P are used. The blank R is placed upon the spreader S, and then the upper plate O is depressed upon it, the operation being to open and strain the metal around the inner opening and press the  
55 outer portion into the desired shape. By the construction shown both the upper and lower plates are provided with two supported portions, the exterior flat portion and the interior bent portion, both being supported by  
60 the beams.

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

1. The pressed-steel bearing-plate A, composed of the flat base portion and the interior  
65 annular portion, said annular portion being in radial section U-shaped, the lower rounding curve of the U forming the bearing and the inner leg of the U extending up to the plane of the base, substantially as described.  
70

2. The pressed-steel bearing-plate B, composed of the flat base portion and the interior annular portion, said annular portion being in radial section S-shaped, the inner curve  
75 of the S forming the bearing portion and being substantially in the plane of the base, substantially as described.

3. The combination of the plate A, having the flat base and the annular portion with U-shaped radial section, with the plate B, hav-  
80 ing the flat base, and the annular portion with S-shaped inner radial section, the rounding curve of the U being adapted to fit within and bear upon the inner curve of the S, substantially as described.  
85

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

WILLIAM VOSS.

Witnesses:

W. S. HARTWELL,  
JAS. S. ROSE.