

(No Model.)

2 Sheets—Sheet 1.

E. G. PHILLIPS.
PILOT FOR LOCOMOTIVES.

No. 413,305.

Patented Oct. 22, 1889.

Fig 1

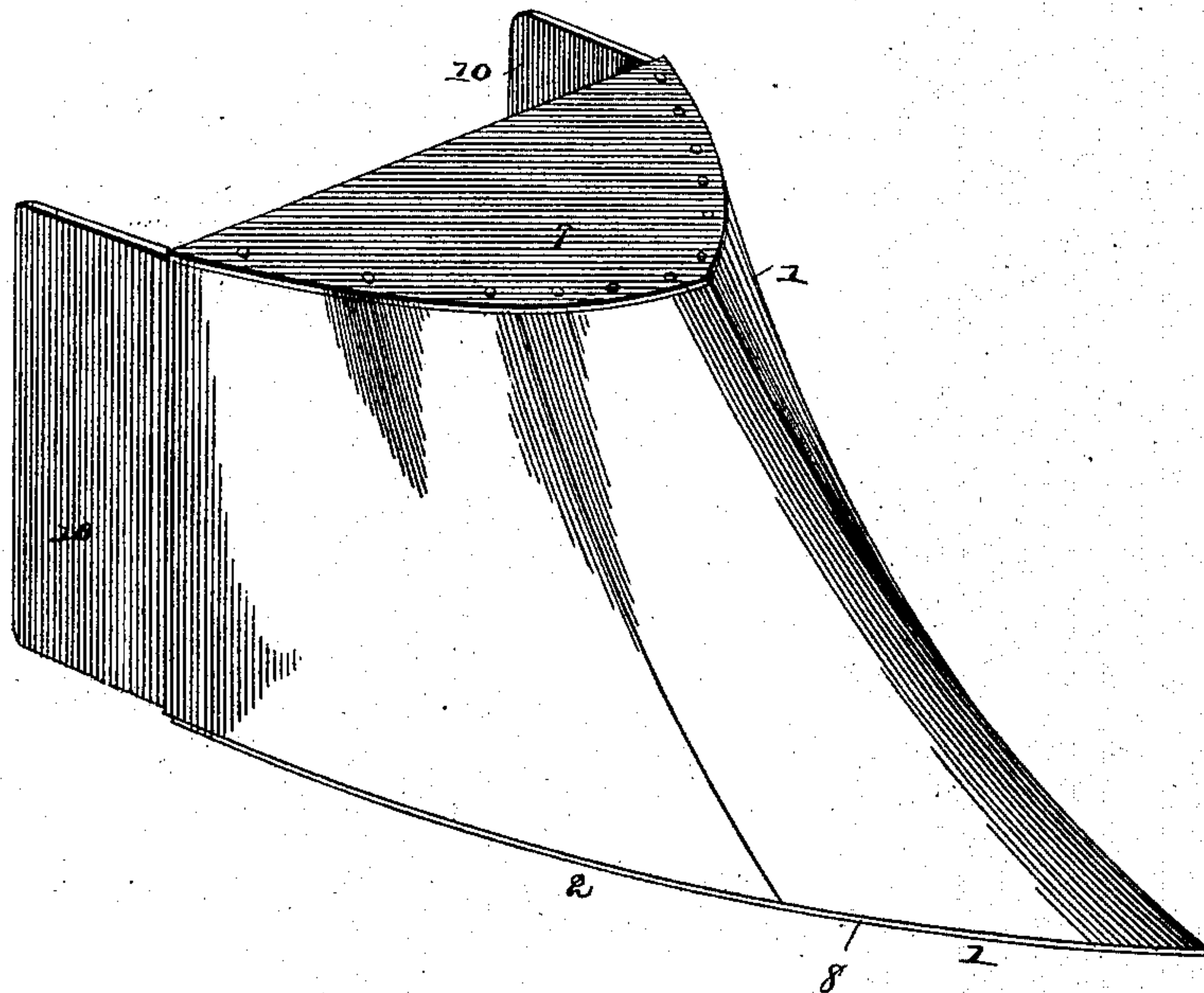
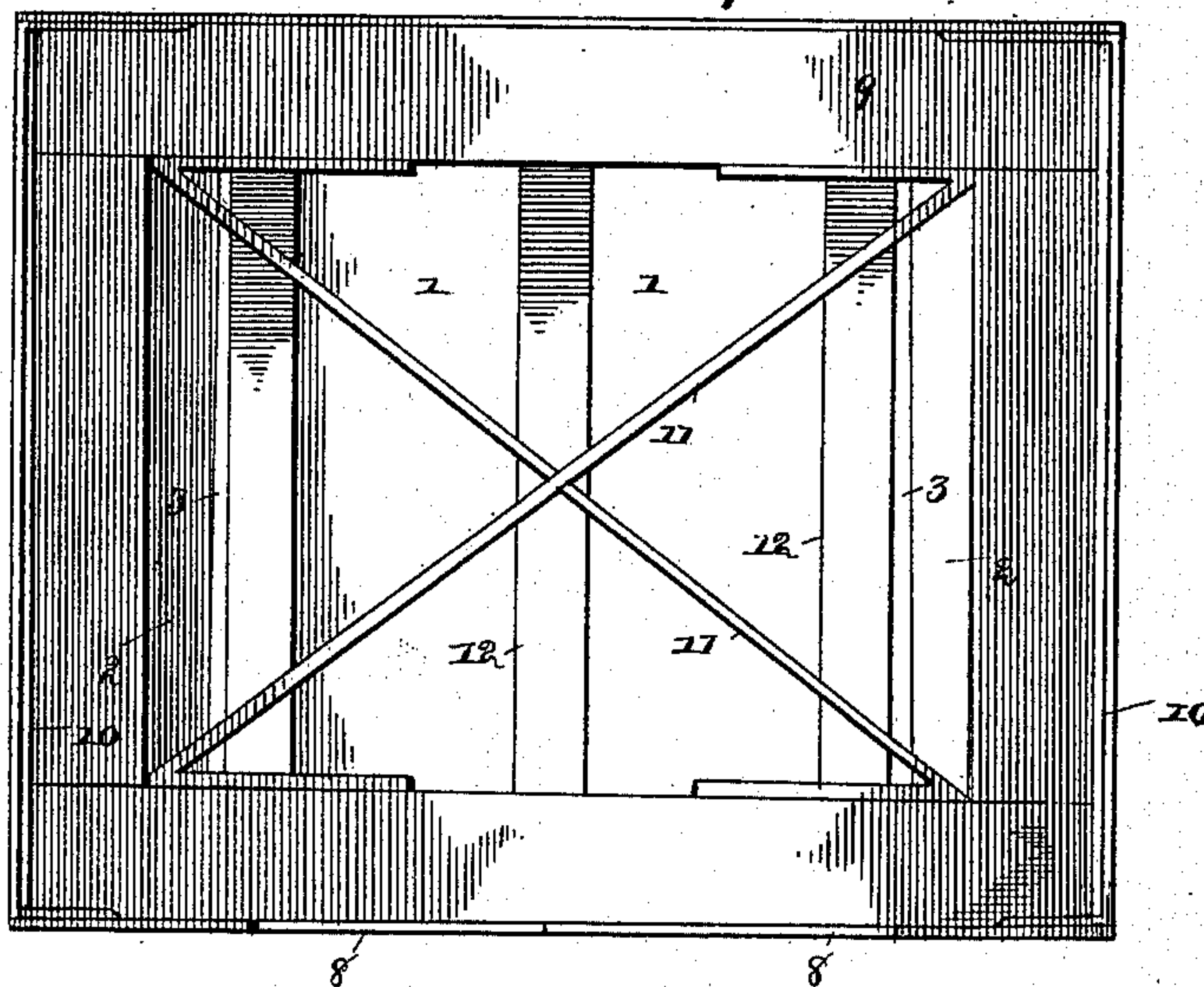


Fig 2



Witnesses

John Smilie
Wm. Bagger

By his Attorneys,

Inventor

Edwin G. Phillips

C. A. Snow & Co.

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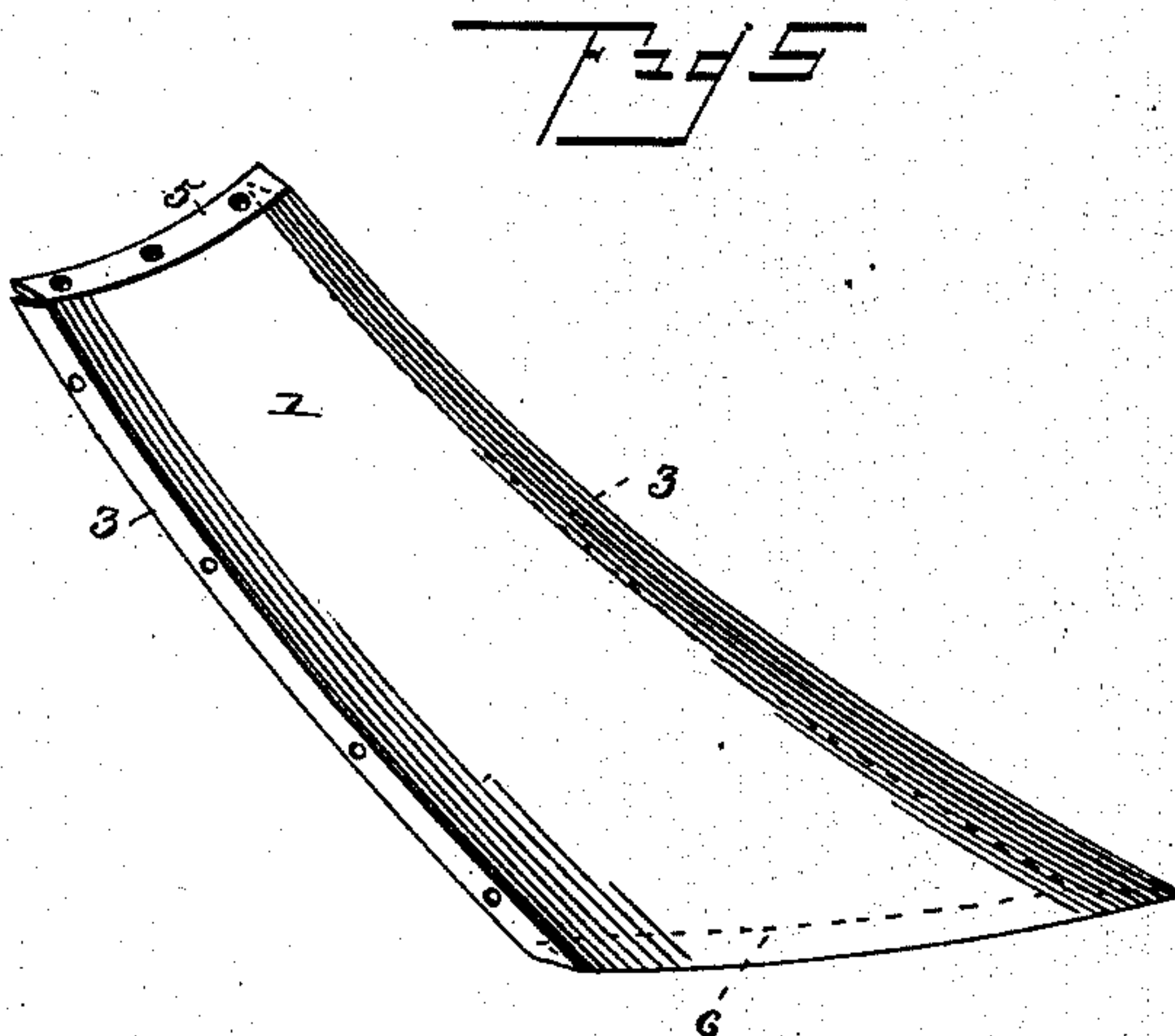
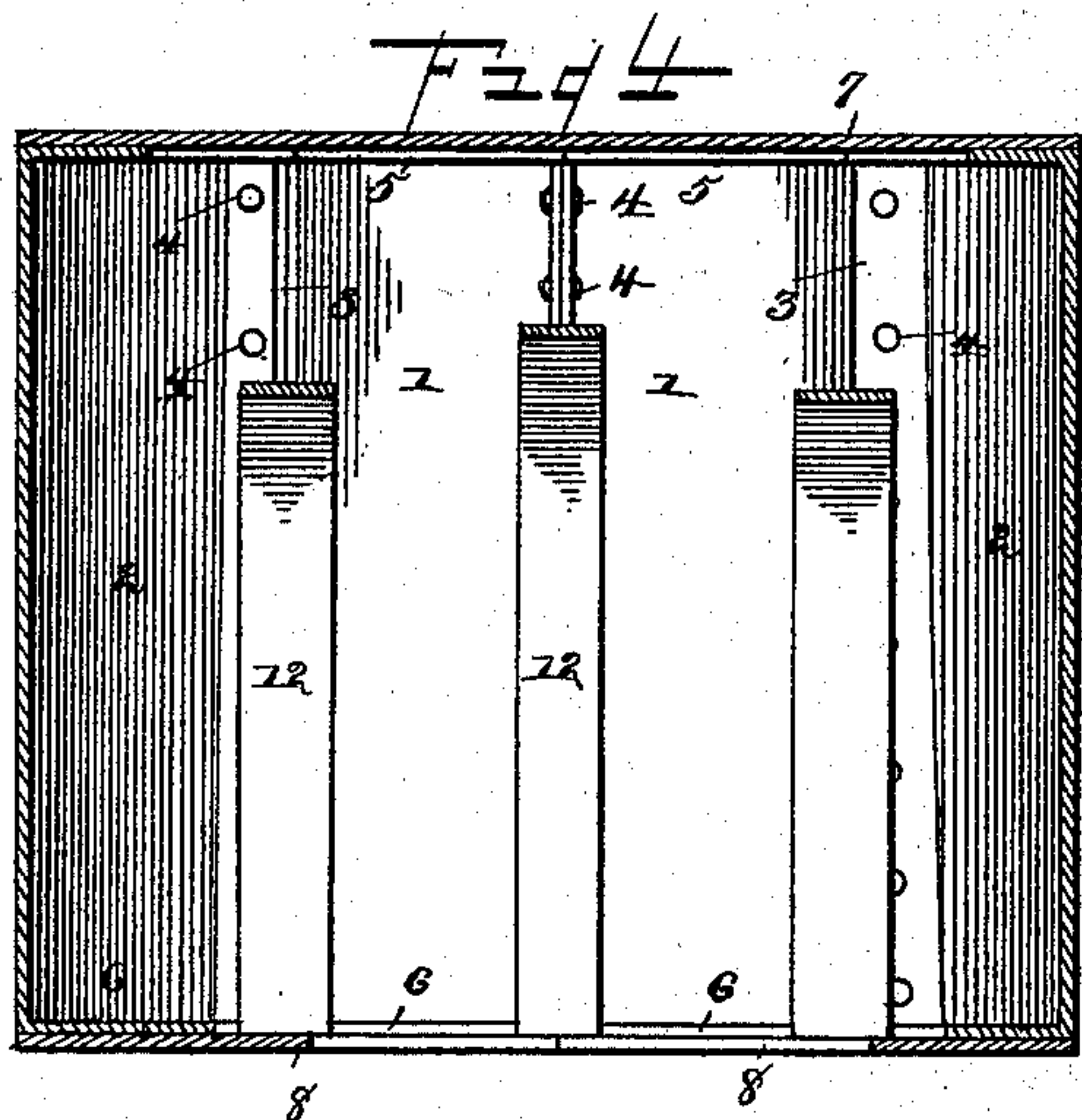
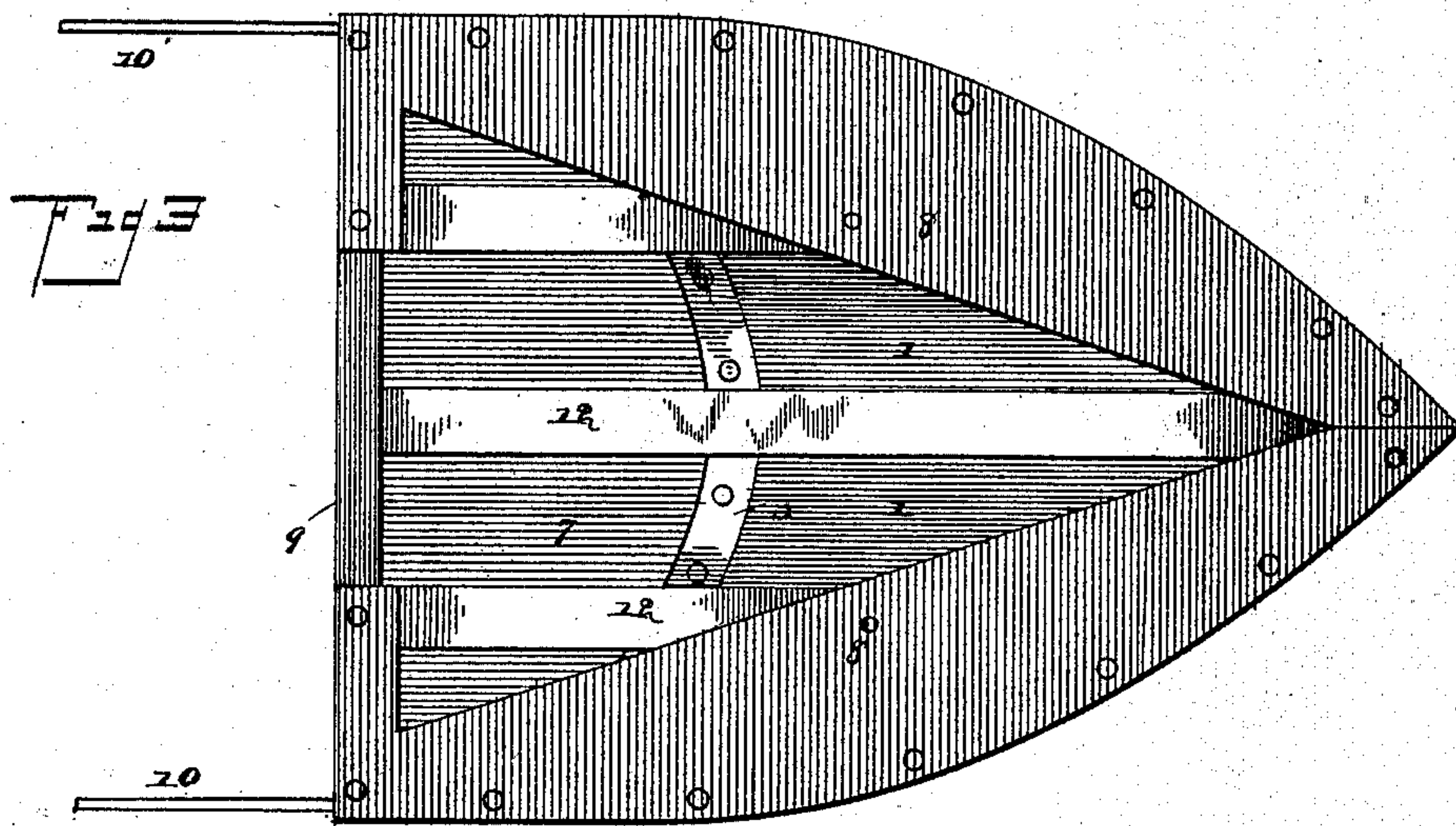
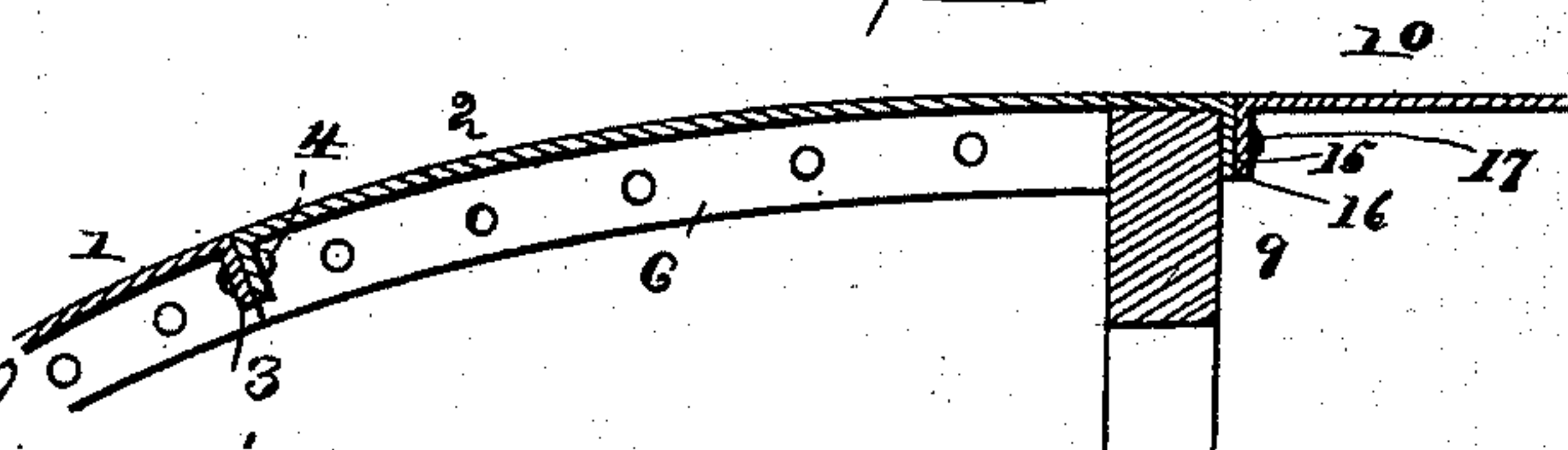


Fig 6



Witnesses

John Linn
Wm. Bagger

By his Attorneys,

Inventor

Edwin G. Phillips

C. A. Snow & Co

UNITED STATES PATENT OFFICE.

EDWIN G. PHILLIPS, OF CHARLESTON, SOUTH CAROLINA, ASSIGNOR OF TWO-THIRDS TO SAMUEL WEISKOPF AND THOMAS P. LIVINGSTON, BOTH OF SAME PLACE.

PILOT FOR LOCOMOTIVES.

SPECIFICATION forming part of Letters Patent No. 413,305, dated October 22, 1889.

Application filed July 12, 1889. Serial No. 317,346. (No model.)

To all whom it may concern:

Be it known that I, EDWIN G. PHILLIPS, a citizen of the United States, residing at Charleston, in the county of Charleston and State of South Carolina, have invented a new and useful Pilot for Locomotives, of which the following is a specification.

This invention relates to pilots for locomotives; and it has for its object to construct a device of this class which shall be provided with or formed of a solid covering in lieu of the customary frame-work, and which shall therefore be adapted to throw aside any obstacles which it may encounter without danger of becoming entangled therewith.

The invention consists in the improved construction and arrangement of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a pilot embodying my improvements. Fig. 2 is a rear view of the same. Fig. 3 is a bottom plan view. Fig. 4 is a vertical transverse sectional view. Fig. 5 is a perspective view of one of the sections of which the body of my improved pilot is constructed. Fig. 6 is a horizontal sectional view of one side of the pilot, showing a modification.

Like numerals of reference indicate like parts in all the figures.

The body of my improved pilot is constructed of two central sections 1 1 and two side pieces or sections 2 2, which, when placed together in proper position, constitute the pilot-body of the desired shape and general outline. The sections are provided at their meeting edges with rearwardly-extending flanges 3 3, bent at the desired angle to each of the said sections, and in such a manner that when the sections are placed in contact with each other the said flanges shall fit closely together and extend in an inward or rearward direction. The several sections are to be connected firmly and permanently together by means of bolts or rivets 4, extending through perforations in the meeting flange 3. The upper and lower edges of the several sections 1 and 2 are horizontal and are provided with rearwardly-extending flanges 5 and 6.

To the upper flanges 5, is bolted or riveted the top plate 7, and bottom plates 8 8 are bolted or riveted to the lower flanges 6, as shown. The rear ends or edges of the top and bottom plates 7 and 8, as well as the side sections 2 of the pilot-body, are bolted or riveted to a vertical rectangular frame 9 at the rear end of the pilot-body. The side sections 2 of the pilot-body may be extended some distance in rear of the vertical frame 9, so as to form wings or flanges 10 10, which said wings project rearwardly a sufficient distance to form guards or fenders for the small wheels at the front end of the locomotive to which the pilot is attached.

In lieu of extending the side sections 2 rearwardly to form the fenders 10, the latter may be constructed independently of the said side sections and attached separately to the sides of the rectangular frame 9, the points of attachment being covered by the rear ends of the sections 2.

By the modification shown in Fig. 6 the rear edges of the side sections 2 will be provided with vertical flanges 15, and the front edges of the fenders 10 will be provided with corresponding vertical flanges 16, and connected with the flanges 15 by bolts 17, as shown in Fig. 6 of the drawings.

It will be seen by reference to the drawings that the central sections 1 of my improved pilot are of a concave curvature on their upper sides or faces, while the curvature of the outer sections 2 is convex. By this construction obstacles encountered by the pilot will have a tendency to slide a short distance up upon the latter and then drop off at the sides and out of the way of the passing train.

The rectangular frame 9 is provided with cross-braces 11, and braces 12 extend diagonally from the upper side of said frame in a forward direction to the bottom plates or flanges 8, with which they may be connected by means of bolts or rivets.

In practice the sections 1 and 2, as well as the top and bottom plates and the fenders constituting my improved pilot, are to be constructed of boiler-iron of suitable thickness. The several braces in the rectangular frame

are to be constructed of round or square iron of suitable dimensions. In this manner a pilot may be constructed which is not only lighter and more durable than those which are now customarily employed, but it has the additional advantage of being provided with a solid covering, thus making it impossible for the pilot to become entangled with any obstacles which it may encounter. It will also be particularly noticed that by my improved method of constructing the pilot and connecting the sections thereof, the upper face remaining entirely smooth, no bolt-heads or similar obstructions appearing on the surface, which, when the sections are fitted neatly and accurately together, will be perfectly smooth and even. The fenders 10, extending rearwardly from the side sections of the pilot, serve to guard the wheels in case the obstacle refuses to be directly displaced, and in case it should swing around, as is sometimes the case, when the front wheels of the locomotive, if not guarded, are liable to become entangled with and broken by the obstacle displaced by the pilot.

It will be seen that no frame-work is required in the construction of my improved pilot, the flanges at the meeting edges of the sections composing the body serving to brace and strengthen the latter, as well as to connect the sections together.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A locomotive-pilot composed of a series of plates or sections provided at their meeting edges with flanges extending rearwardly to receive the connecting bolts or rivets, substantially as set forth.

2. A locomotive-pilot composed of the central and side plates or sections provided at their meeting edges with flanges to receive the connecting bolts or rivets and provided at their upper and lower horizontal edges with rearwardly-extending flanges, and top and bottom plates bolted or riveted to the said flanges, substantially as set forth.

3. In a locomotive-pilot, the combination the central and side plates or sections provided with connecting-flanges at their meeting edges and horizontal flanges at their upper and lower edges, the top and bottom plates secured to said horizontal flanges, and the vertical rectangular frame secured between the rear ends of said top and bottom plates, substantially as set forth.

4. In a locomotive-pilot, the combination of the central and side sections having connecting-flanges at their meeting edges and provided with horizontal flanges at their upper and lower edges, the top and bottom plates secured to said horizontal flanges, the rectangular vertical frame secured between the rear ends of said top and bottom plates, the cross-braces in said horizontal frame, and the longitudinal braces connecting the upper side of said horizontal frame with the bottom plates of the pilot-body, substantially as and for the purpose set forth.

5. In a locomotive-pilot, the combination of the rectangular frame, the top and bottom plates secured to the same, the central and side plates or sections having connecting-flanges at their meeting edges, said side sections being extended in rear of the frame to form guards or fenders, the cross-braces in the rectangular frame, and the longitudinal braces connecting the latter with the bottom plates of the pilot, substantially as and for the purpose herein set forth.

6. The combination, with a locomotive-pilot constructed of plates or sections having flanges extending inwardly from their meeting edges and bolted together, of the rearwardly-extending guards or fenders, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

EDWIN G. PHILLIPS.

Witnesses:

A. SCHIADURIM,
JAS. B. EVANS.