

No. 672,868.

Patented Apr. 23, 1901.

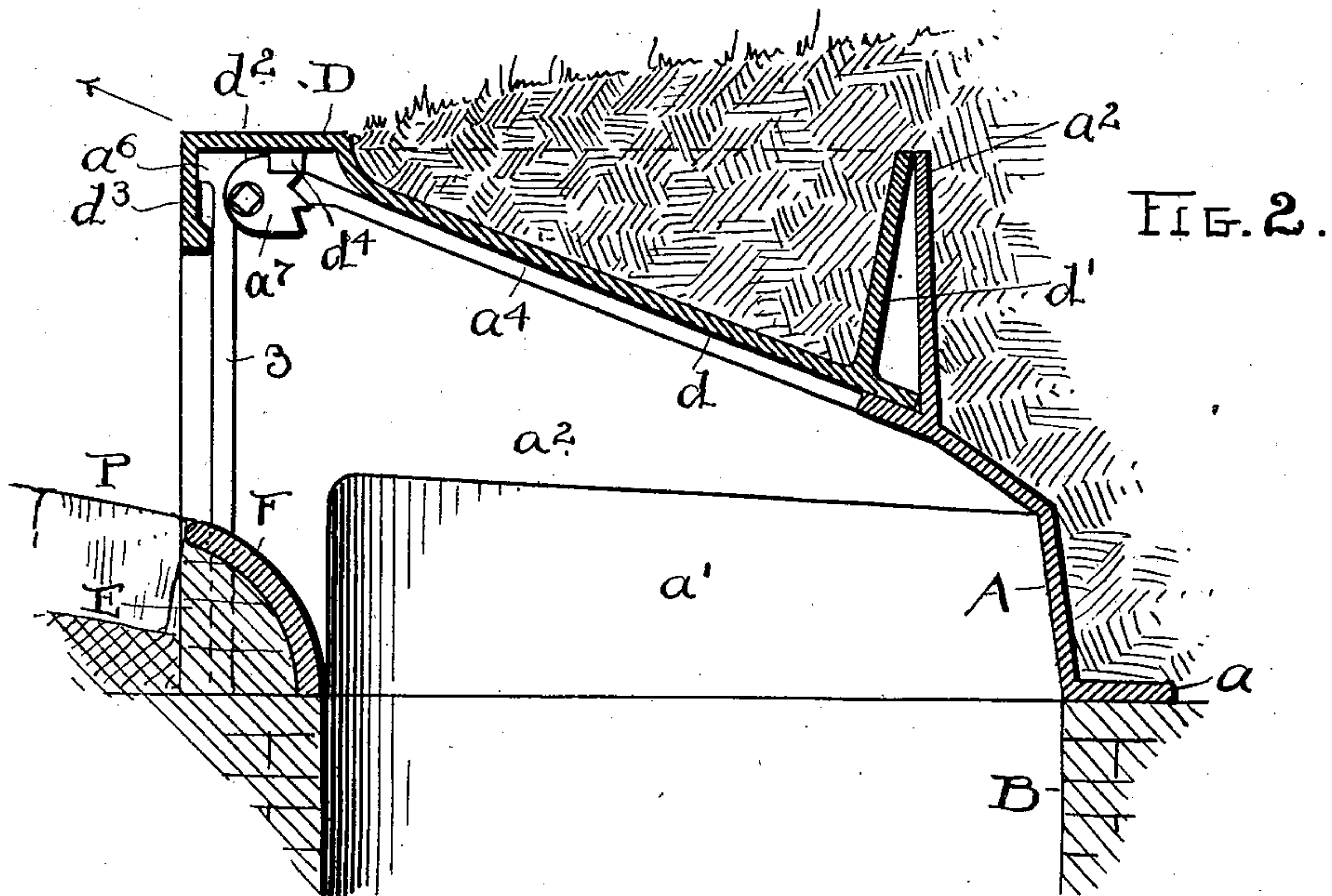
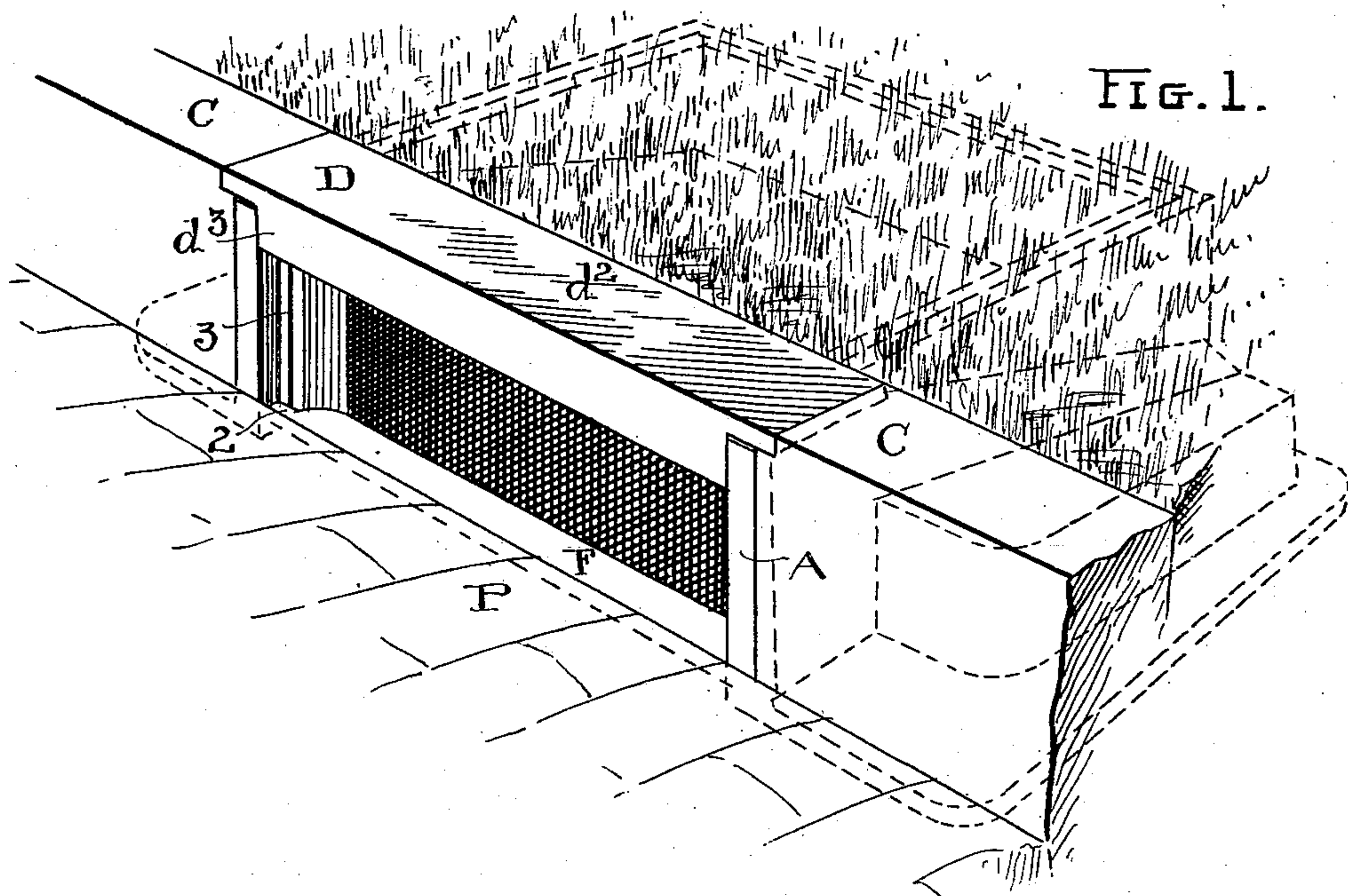
J. BANWELL.

CASING AND COVER FOR CATCH BASINS.

(Application filed Jan. 19, 1901.)

(No Model.)

2 Sheets—Sheet 1.



ATTEST

R. B. Moser

M. C. Shuchan

INVENTOR

James T. Banwell

BY

W. T. Fisher

ATTY

No. 672,868.

Patented Apr. 23, 1901.

J. BANWELL.

CASING AND COVER FOR CATCH BASINS.

(Application filed Jan. 19, 1901.)

(No Model.)

2 Sheets—Sheet 2.

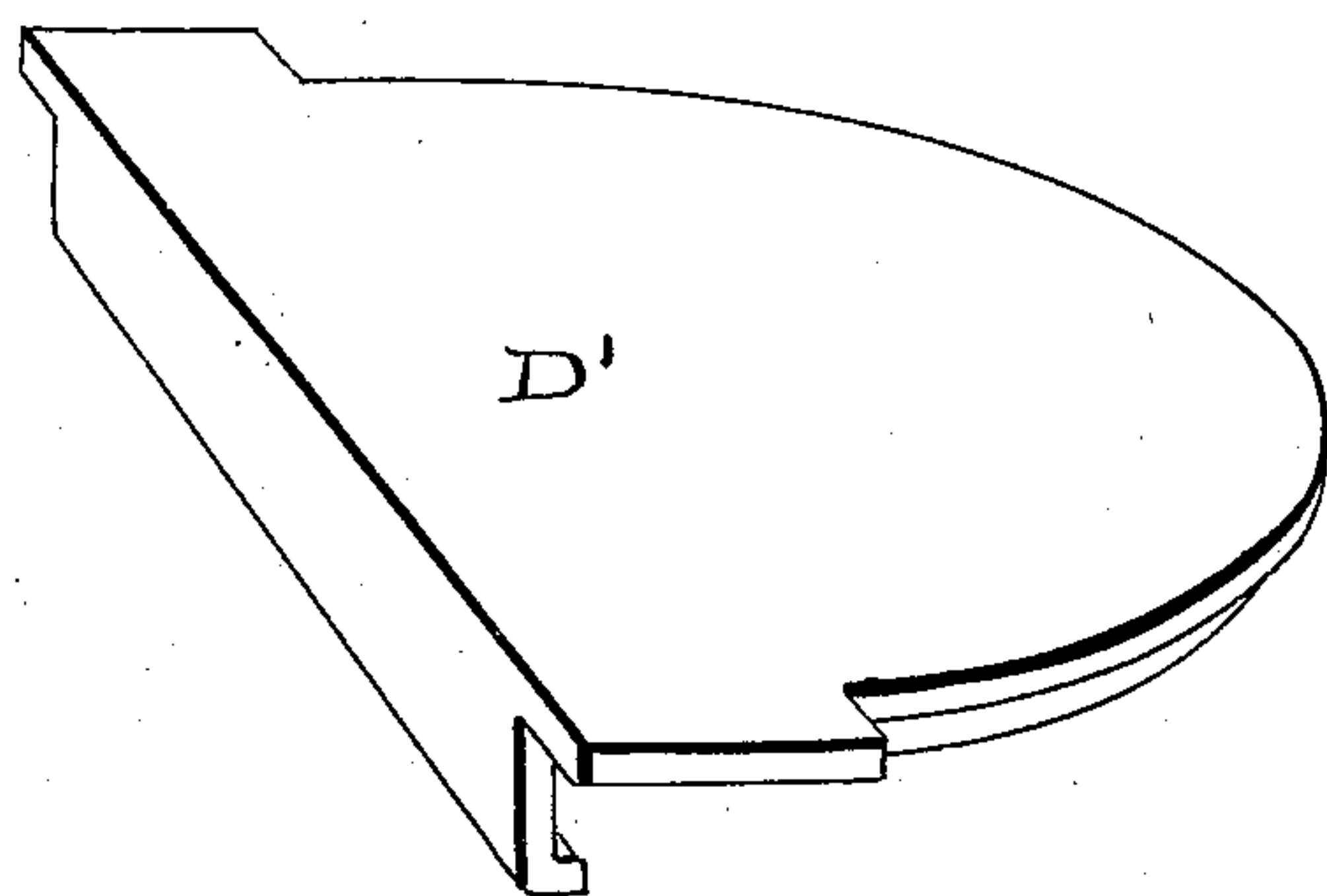


FIG. 3.

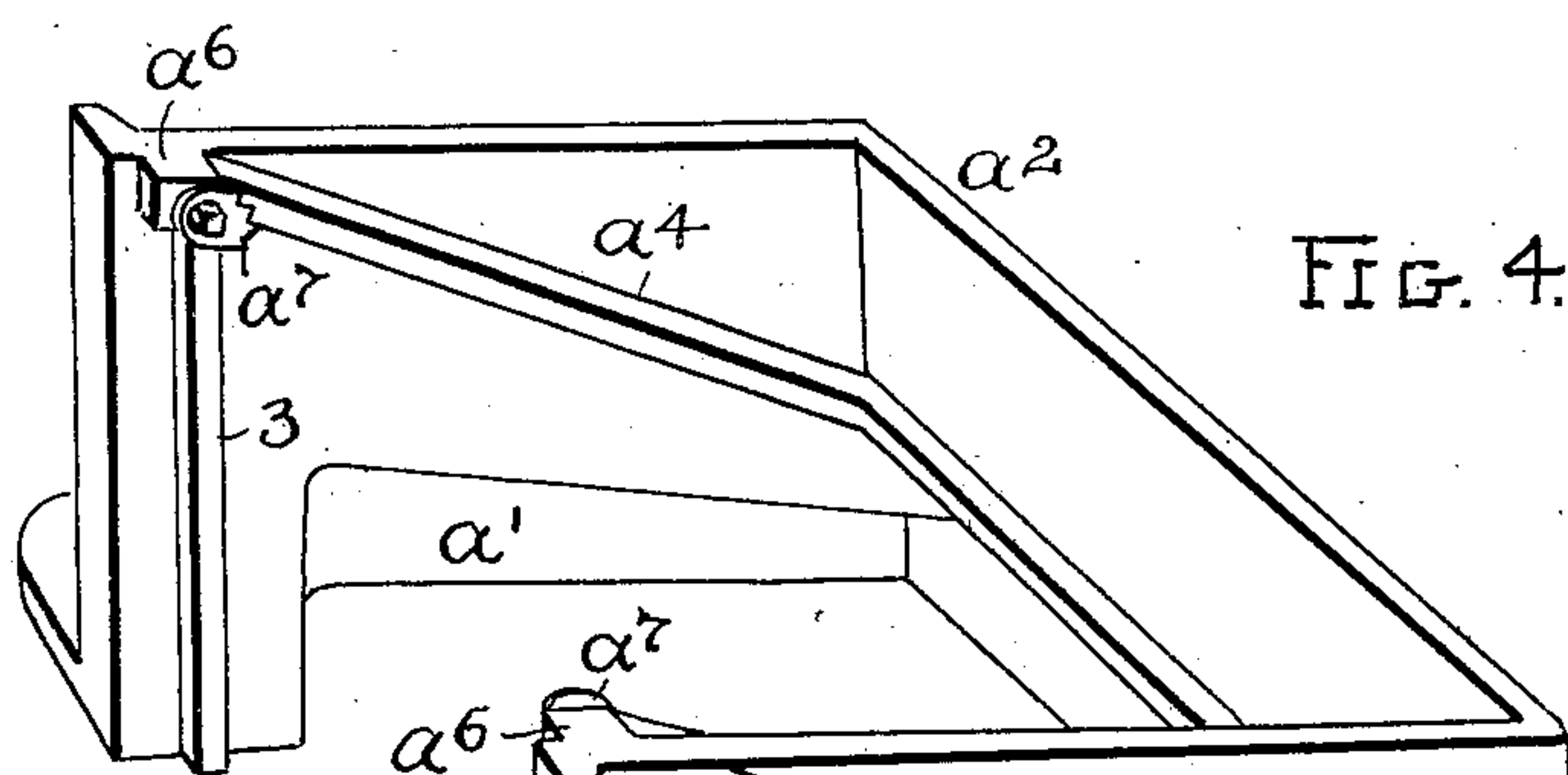


FIG. 4.

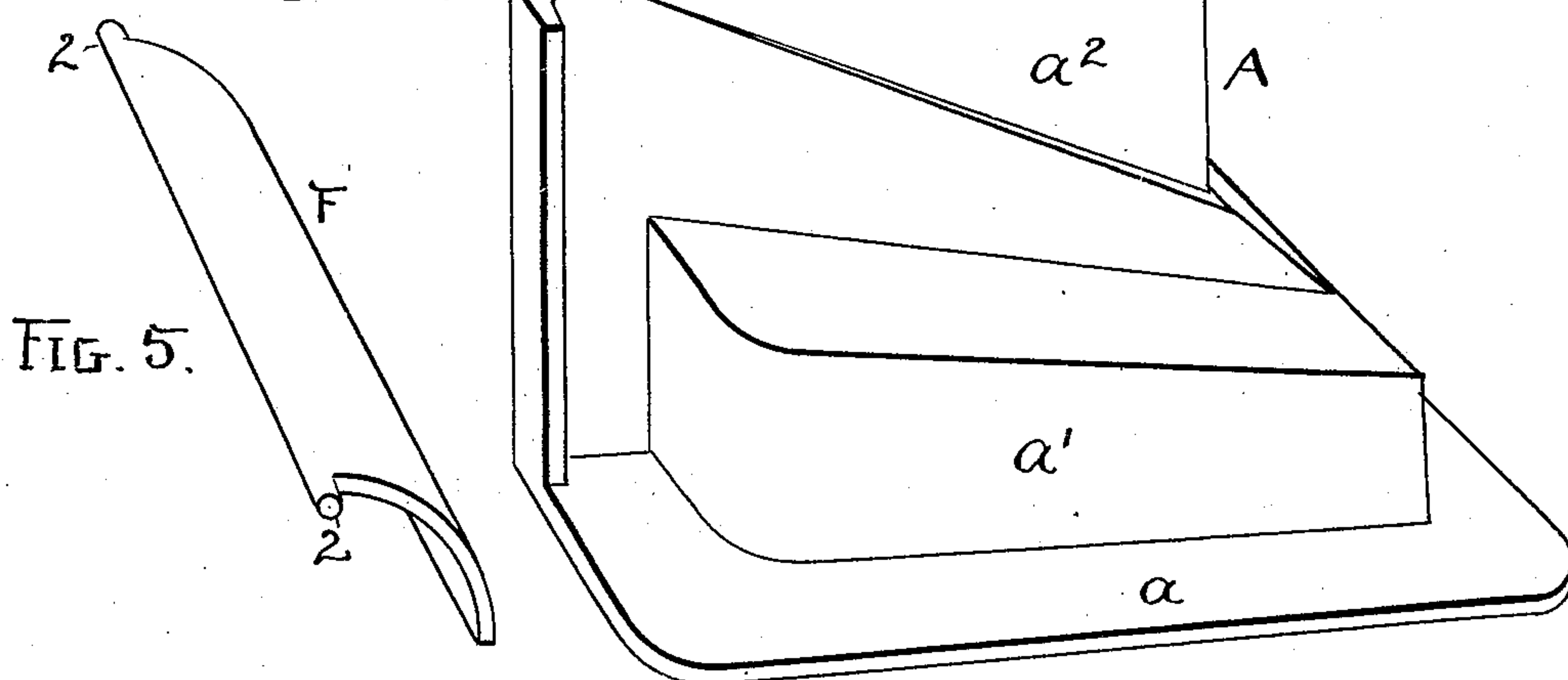


FIG. 5.

ATTEST.

W. B. Moses

M. A. Sheehan

INVENTOR.

James Banwell

By *W. T. Fisher*

ATTY

UNITED STATES PATENT OFFICE.

JAMES BANWELL, OF CLEVELAND, OHIO, ASSIGNOR TO C. W. NOKES AND
GEORGE CAUNTER, OF SAME PLACE.

CASING AND COVER FOR CATCH-BASINS.

SPECIFICATION forming part of Letters Patent No. 672,868, dated April 23, 1901.

Application filed January 19, 1901. Serial No. 43,877. (No model.)

To all whom it may concern:

Be it known that I, JAMES BANWELL, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Casings and Covers for Catch-Basins; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in casings and covers for catch-basins; and it consists in the construction and combination of parts substantially as shown and described, and particularly pointed out in the claims.

Figure 1 is a perspective view of a section of a street and its curbing, showing one of my improved constructions set into working position and reaching into the lawn, as herein-after fully described. Fig. 2 is a central cross-section, front to rear of Fig. 1. Fig. 3 is a perspective view of a modified form of the top or cover alone, and Fig. 4 is a perspective view of the casing alone. Fig. 5 is a detail of a shield-plate belonging at the mouth to the basin, Fig. 2.

A represents the casing of the basin, which rests on the top of the brickwork of the basin proper, B, and has a flange a about its sides and rear for this purpose. A strikingly novel feature of this casing is its construction with an open front its full width and depth, so that it is a three-sided casing, so to speak, or, to be more accurate, has two sides and a rear portion, but no front at all. Not only this, but it is of such relative depth that it comes up at its sides practically flush with the top of the curbstone C at its sides and top edge, while its general dimensions are such as to form a wide opening over the top of the basin. The size of this opening and the entire absence of a front to said casing make it practical for the cover D to be removed, and thus throw the basin open to light and to the greatest possible convenience for entering and cleaning it out. It will be noticed in Fig. 2 that while the casing A sets down upon the masonry B the pavement P is built up to a somewhat higher elevation, so that an opening of the usual size is left beneath the cover D for the water to run into the basin. Back

of the pavement I show a bricked-up wall E, over which I place a shield-plate F, curved in cross-section and serving to protect the wall beneath and to afford a smooth overflow into the basin. This, however, leaves the front of the casing open the full depth down to the paving when the cover D is removed, and the very great convenience and advantage of this for cleaning out the basin is obvious.

Features of construction in casing A, in addition to the foregoing, are the bulge or swell a' at its sides and rear extending up about half its depth, and the narrowed box-shaped upper portion with straight walls a^2 , within which is the ledge or rib a^4 . The said rib is inclined from the front of the sides downward toward the rear, so that at the rear it is about half-way the full depth of the wall, while at its front it starts nearly or quite flush with the top of the casing. This ledge thus arranged constitutes a rearwardly-inclined support for the cover D, and its declination alone, in conjunction with the weight of the cover, seems to hold the cover securely in place. In addition to this, however, there are peculiarities about the cover which further contribute to its secure and permanent seating without special means for fastening it in place. Thus the said cover has a top proper, d , with upwardly-projecting side and rear walls d' , corresponding to the depth at which it sets in the casing, which brings the upper edges of its walls flush with the walls a^2 when the cover is on. At its front the cover is formed with a flat portion d^2 , designed to be set in with and for a flush continuation of the curb, while along its front is a down-flange d^3 , having recesses, notches, or their equivalent constructed to engage the outward projections or lugs a^6 on the top corners of the casing. The top or cover D engages on these lugs, which prevents lifting up to any great extent at the front, while the weight and pull rearward and the confining-walls hold the entire cover in place. This, however, leaves the cover free to be removed when necessary, and there are no bolts or the like to be released or fastened when the cover is taken off or put in place.

The shield-plate F has projections 2 at its ends engaged with the vertical ribs 3 on the casing.

I might vary the construction of the cover, so as to give less declivity to its top d , or none at all for that matter, as in Fig. 3; but I prefer the present construction, because I can
 5 put it in place and build the lawn out over it to the curb, as shown in Figs. 1 and 2, and thus adapt it to places where lawns are maintained and a bare metallic cover would be very objectionable.

10 The cover can be removed without materially disturbing the sod upon it, and this is especially desirable on resident streets.

To accommodate the top to different heights of curbs, I provide the casing with notched or
 15 toothed eccentrics a^7 , which are bolted at each side at the top of ribs 3 and which engage a lug d^4 on the bottom side of cover D.

In Fig. 3 a modified form of cover D' is shown, which has a plain flat surface, which
 20 is adapted to rest upon walls made to conform therewith.

What I claim is—

1. The cover having upwardly-projecting walls at its sides and rear and a flat curb portion across its front and top, substantially as
 25 described.

2. The cover constructed with an inclined top, in combination with the casing having inclined side ledges supporting said cover and
 30 an overlapping front flange interlocked with the front and top of the casing, substantially as described.

3. The casing open across its entire front from top to bottom, in combination with an
 35 overflow shield-plate engaged at its ends with the edges of said casing, substantially as described.

4. The casing for a catch-basin having a bottom flange about its rear and sides and a
 40 swell within said flange and vertical walls within said swell, and having an open front its full depth and width, substantially as described.

5. A casing for catch-basins open across its entire front from top to bottom, in combination with a cover having a downwardly-extending flange at its front and means to fix
 45 the cover at its front at different elevations in respect to the casing, thereby bringing the said flange and the top part of the cover in
 50 face-line with the street-curb and adapting it to different heights and inclinations of curb, substantially as described.

6. The casing open across its front from side to side, in combination with a cover provided with a front flange at right angles to
 55 its top, and a rotatable support at each side of the casing supporting said cover and constructed to raise and lower the cover within limits as the curb requires, substantially as
 60 described.

7. The casing closed at its rear and sides and open across its front, in combination with a cover having a flange downward across its front from side to side of the casing, overlapping
 65 projections on said parts, respectively, at their front to hold the cover down on the casing, a rotatable toothed support at each side of the casing on which the cover rests, and means on the cover to engage said support,
 70 substantially as described.

8. In catch-basins, the casing open across its front and having inward projections at its front top and sides, in combination with a
 75 cover having a down-flange at its front provided with an inwardly-extending portion at its bottom to engage on said outward projections on the casing and prevent the cover being lifted at the front, substantially as described.
 80

Witness my hand to the foregoing specification this 11th day of January, 1901.

JAMES BANWELL.

Witnesses:

M. A. SHEEHAN,

R. B. MOSER.