

No. 705,027.

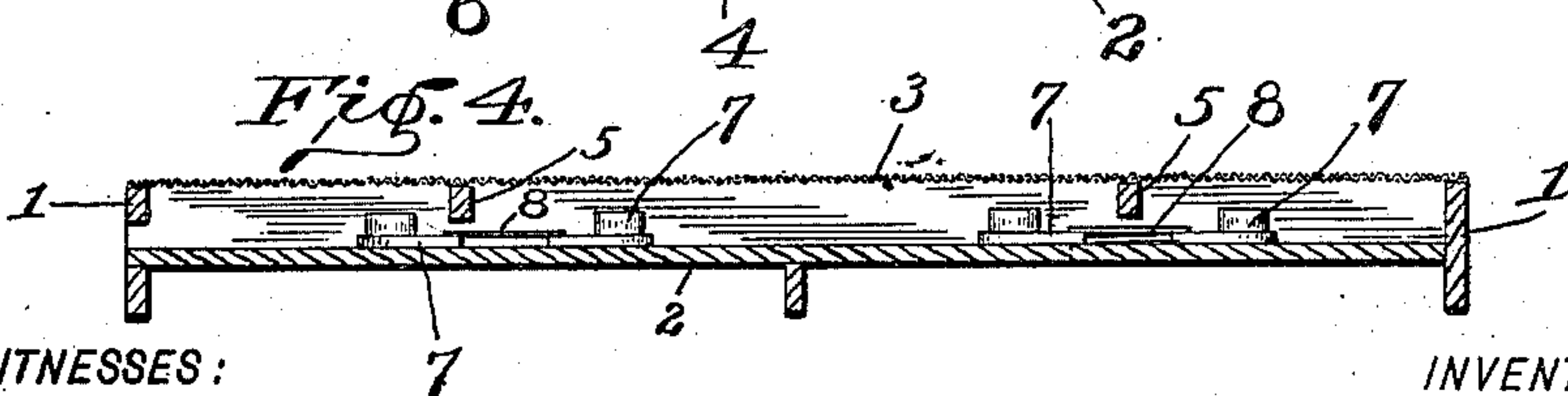
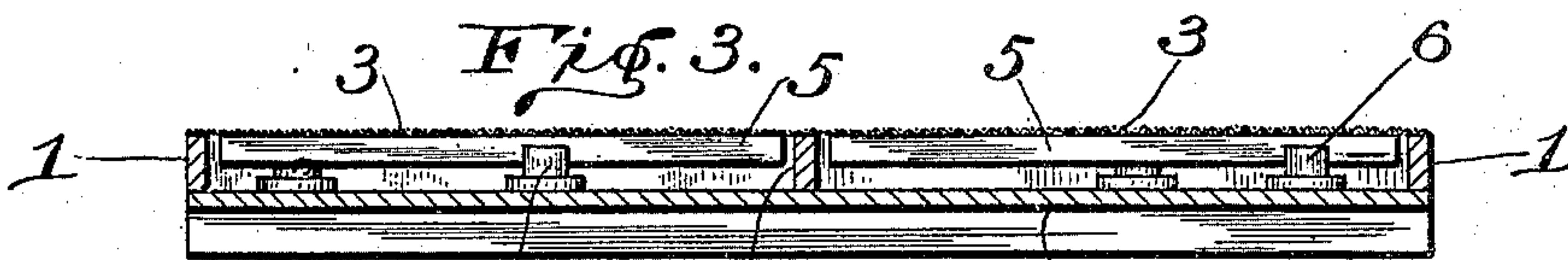
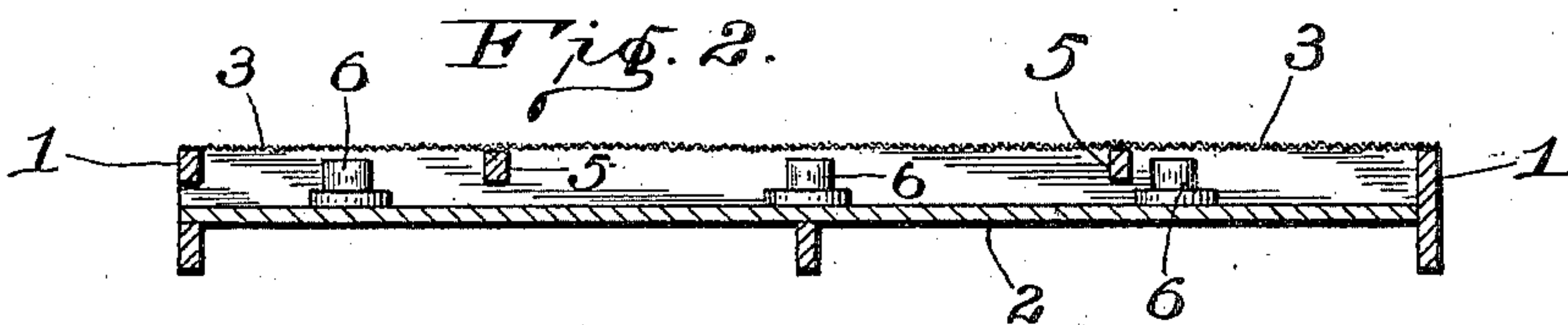
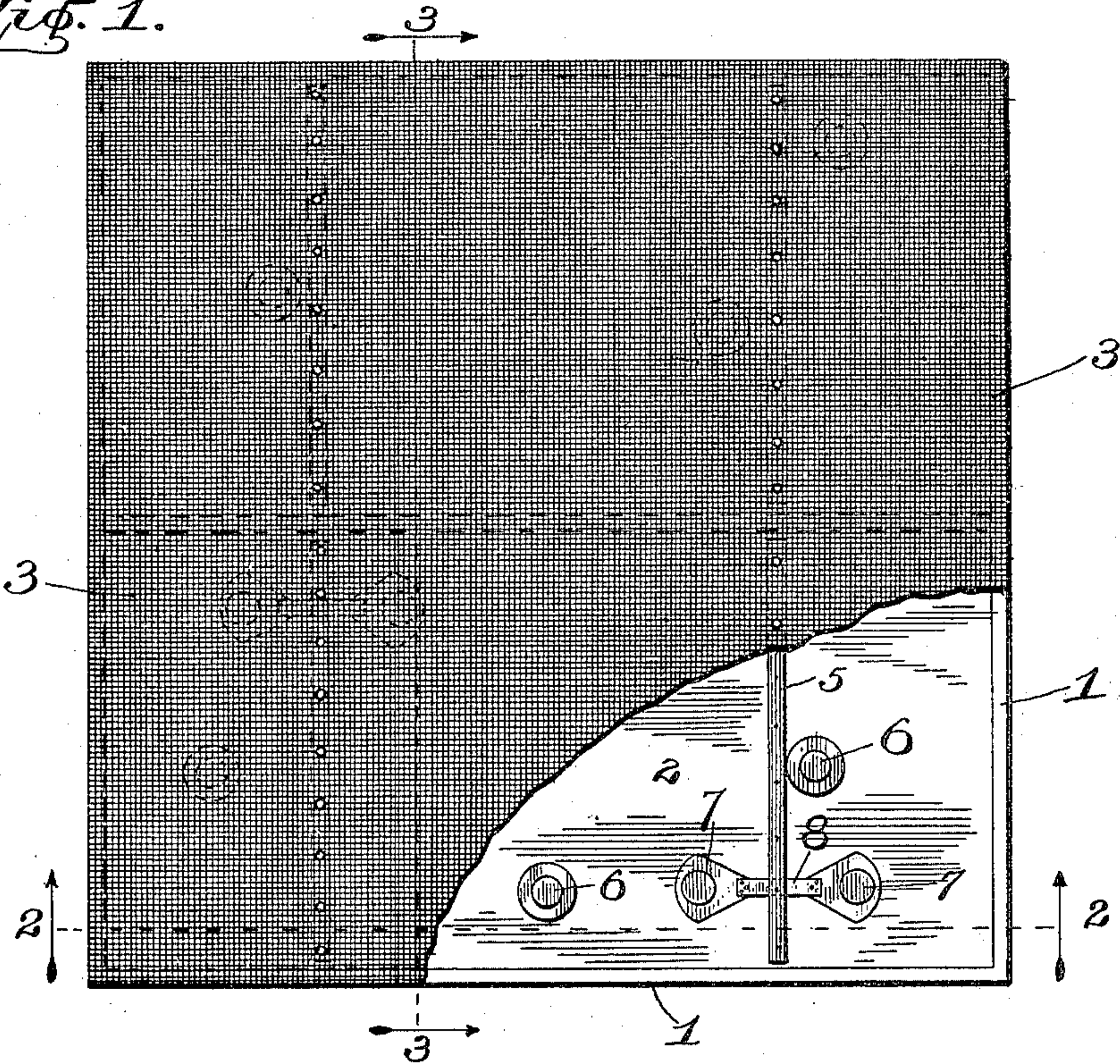
Patented July 22, 1902.

A. C. BRANTINGHAM.
SELF CLEANING SIEVE.

(Application filed Oct. 2, 1900.)

(No Model.)

Fig. 1.



WITNESSES:

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ALLEN C. BRANTINGHAM, OF TOLEDO, OHIO, ASSIGNOR TO NORDYKE & MARMON COMPANY, OF INDIANAPOLIS, INDIANA, A CORPORATION OF INDIANA.

SELF-CLEANING SIEVE.

SPECIFICATION forming part of Letters Patent No. 705,027, dated July 22, 1902.

Application filed October 2, 1900. Serial No. 31,740. (No model.)

To all whom it may concern:

Be it known that I, ALLEN C. BRANTINGHAM, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Self-Cleaning Sieves, of which the following is a specification.

The object of my said invention is to provide a means by which shaking-sieves such as are used in bolting-machines in flouring-mills may be caused to automatically keep themselves cleaned in operation.

Said invention consists in securing to the screen-cloth certain strips or projections and in providing knockers which under the impulse of the shaking or gyratory motion of the sieves shall come in contact therewith and jar, and thus clean the same.

Referring to the accompanying drawings, which are made a part hereof, and on which similar reference characters indicate similar parts, Figure 1 is a top or plan view of a single sieve embodying or provided with my said invention; Figs. 2 and 3, transverse vertical sectional views thereof as seen when looking in the direction indicated by the arrows from the dotted lines 2 2 and 3 3, respectively, in Fig. 1; and Fig. 4, a view similar to Fig. 2, but showing an alternative form of knockers.

The screen shown comprises a rectangular frame 1, a floor 2, and a cloth sieve or screen 3. It is shown as having a central partition 4, by which it is divided into two compartments. To the under side of the sieve-cloth 3 are secured projections 5. These are shown as strips (ordinarily of wood) and are connected to the cloth, being entirely free from contact with the frame, so that a blow against the same will jar the screen-cloth without the blow being taken up by the frame.

Movable weights or knockers 6 are positioned near the cloth 3. These are shown as supported by the floor 2. Said knockers under the impulse of the reciprocatory or gyratory movement of the screen structure will frequently come in contact with the strips 5 with considerable force, which keeps the screen or cloth constantly agitated, with the result that any material adhering to the cloth will be dislodged.

The knockers 6 in sliding over the floor 2

also keep any material which may fall on said floor agitated and prevents the adherence of the same thereto.

As shown, the knockers 6 may be single disks or plates having upwardly-extending projections adapted to come in contact with the strips 5. Such knockers are free to move in any direction and to any extent, and they may come in contact with the sides of the frame 1 as well as in contact with said strips. It is desirable in some cases, however, that these knockers should be retained near the strips 5, so that they will come in contact therewith continuously. For this purpose I have designed what may be termed "double" knockers. These may consist of two knockers 7, of substantially the same character as the knockers 6, connected by bars 8. As best illustrated in Fig. 4, they are arranged so that the bars are beneath the strips 5, while the knockers are on each side thereof. This variety of knockers I consider to be advantageous in some cases; but, as will be readily understood, either kind of knockers may be used, as may be desired, or both kinds may be used together in the same sieve.

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

1. In a shaking-screen, the combination, of the sieve-cloth, projections secured to and extending down from the under side of said cloth, a floor near thereto, and knockers mounted on and adapted to slide over said floor, which extend up to above the plane of the lower edge of said projections, whereby they are adapted, under the impulse of the movement of the screen, to strike said projections and dislodge adhering material, substantially as set forth.

2. In a shaking-screen, the combination, of the sieve-cloth, strips secured to and supported wholly by said cloth and projecting from its surface, a floor near said cloth, and knockers mounted to move on said floor and having parts which project to within the spaces between said strips and adapted to knock against the sides thereof in their movements under the impulse of the movement of the screen, substantially as set forth.

3. The combination, in a shaking screen or

sieve, with the cloth thereof, of strips secured
to said cloth, a floor beneath said cloth, and
knockers composed of two parts one of which
5 extends up on each side of a strip, said knock-
ers being supported on the floor near said
cloth and adapted under the impulse of the
movement of the screen to hit said strips and
dislodge material adhering to said cloth.

In witness whereof I have hereunto set my
hand and seal at Toledo, Ohio, this 26th day 10
of September, A. D. 1900.

ALLEN C. BRANTINGHAM. [L. S.]

Witnesses:

GEO. J. RUDD,

LOUIS C. RADDATZ.