

G. P. & P. D. BURKE.
 SCREEN ATTACHMENT.
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954,420.

Patented Apr. 12, 1910.

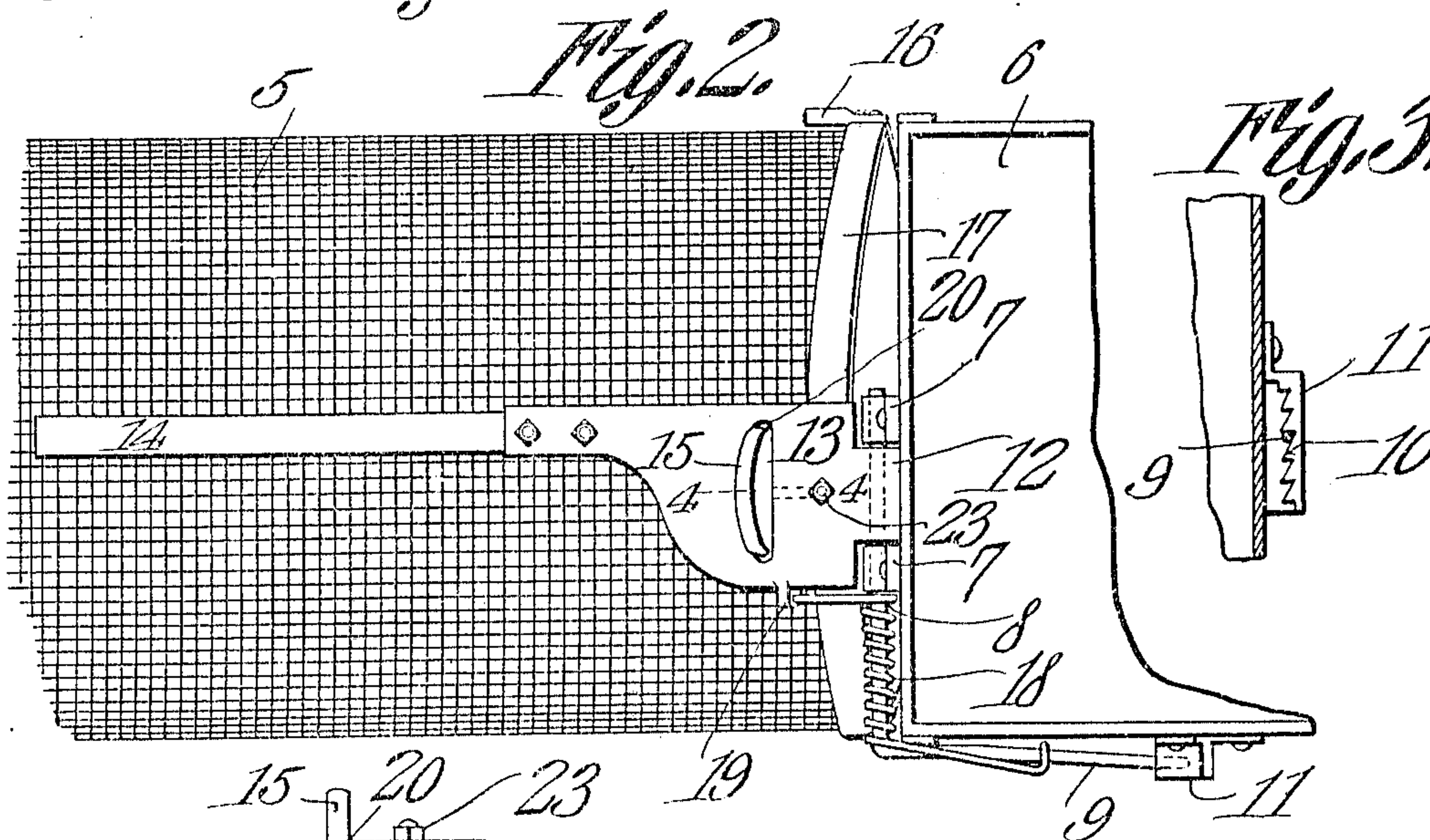
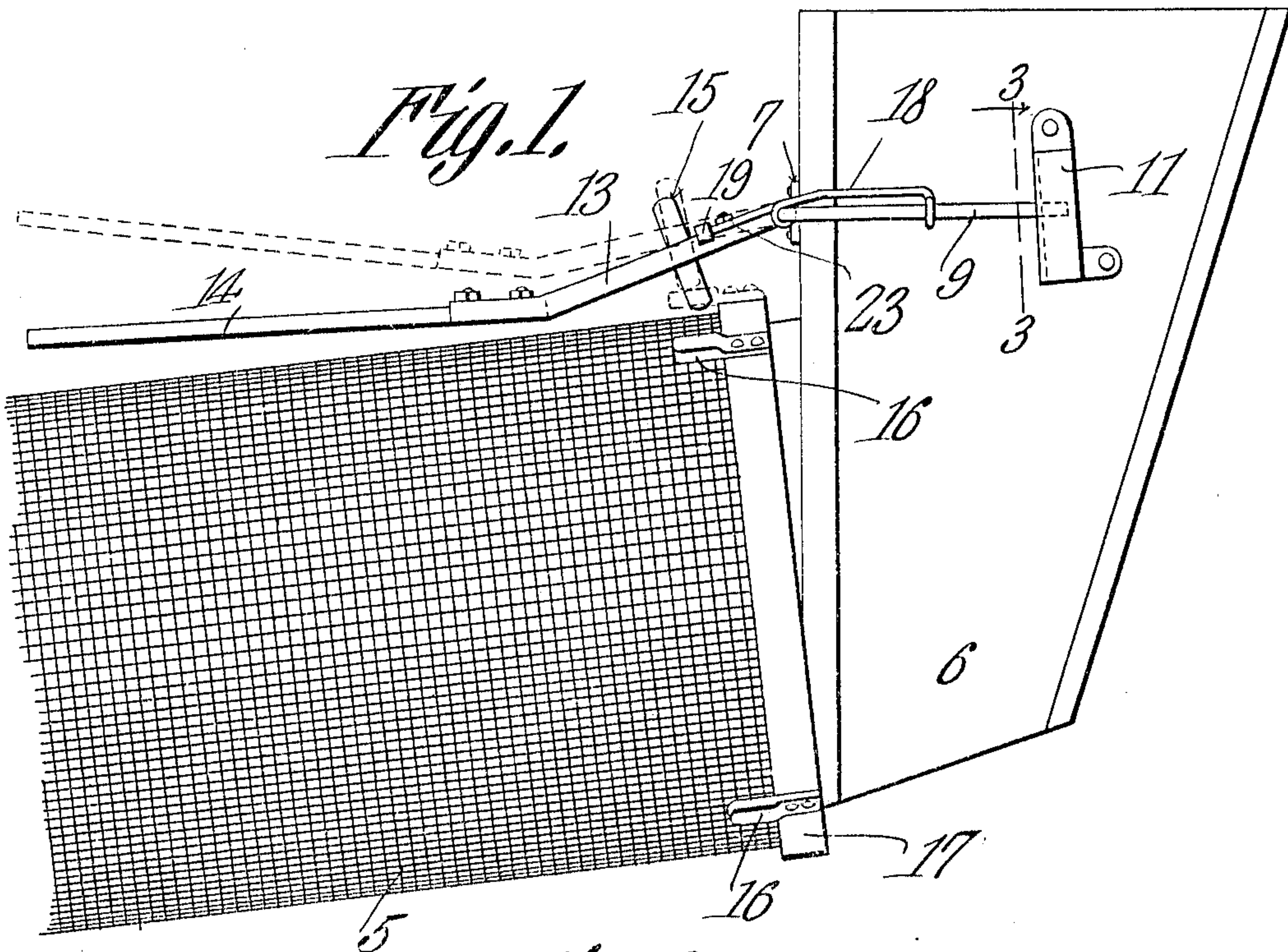


Fig. 3. A detail view of the latch (11) and bolt (3) assembly, showing the latch (11) with a spring (10) and the bolt (3) passing through it.

Fig. 4. A detail view of the handle (14) and its connection to the frame (6) via a rod (13) and bracket (15). Other components labeled include 7, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, and 24.

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UNITED STATES PATENT OFFICE.

GEORGE P. BURKE AND PETER D. BURKE, OF ROSWELL, SOUTH DAKOTA.

SCREEN ATTACHMENT.

954,420.

Specification of Letters Patent.

Patented Apr. 12, 1910.

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To all whom it may concern:

Be it known that we, GEORGE P. BURKE and PETER D. BURKE, citizens of the United States, residing at Roswell, in the county of Miner, State of South Dakota, have invented a new and useful Screen Attachment, of which the following is a specification.

This invention is a device for knocking or jarring a screen so as to shake loose any of the material which may adhere thereto, and its object is to provide a simple and efficient device of this kind.

Another object is to provide improved means for adjusting the parts to vary the force of the blow delivered by the knocker.

With these objects in view, the invention consists in the novel construction and arrangement of parts hereinafter described and claimed, reference being had to the drawings hereto annexed in which,

Figure 1 is a side elevation of a portion of a screen showing the application of the invention. Fig. 2 is a plan view; Fig. 3 is a section on the line 3—3 of Fig. 1. Fig. 4 is a section on the line 4—4 of Fig. 2.

Referring more particularly to the drawings, 5 denotes a rotary screen which is in the shape of a cylinder, and is open at its ends, the inlet end only being shown. Into this end a hopper 6 discharges the material to be screened or sifted. The structure of the screen itself is immaterial to the present invention, and nothing is claimed with respect thereto.

On the front wall of the hopper 6 are secured ears 7 in which is mounted for rotation a rod 8 having at one of its ends a lateral bend 9 which is engageable with locking notches 10 in a plate 11 secured to one of the side walls of the hopper on the outside thereof. To the rod 8, between the ears 7, is pivotally connected, by means of a knuckle 12, a plate 13 carrying a knocker arm 14, which extends above the screen lengthwise thereof along its outer surface. The arm is located so as to strike or tap the screen when the plate is swung on its hinge. Intermediate its ends, the plate carries a roller 15 which is in the path of tappets 16 mounted on the head ring 17 of the screen. When these tappets strike the roller, the plate is lifted, and when the tappets clear the roller, the plate drops down and the arm strikes the screen. The arm is thus caused to beat intermittently upon the outer sur-

face of the screen when the latter is in motion, whereby any of the particles of the material being sifted, which may adhere to the screen, are knocked loose, and clogging up of the screen is therefore effectually prevented.

In order that the arm 14 may strike the screen with sufficient force to dislodge the material, there is provided a spring 18 which is coiled around a portion of the rod 8, and is fastened at one end to a lug 19 on one of the edges of the plate 13. The other end of the spring extends along the lateral bend 9 of the rod and is hooked thereonto. The spring is so mounted that it is placed under tension when the plate 13 is lifted, and when the tappet 16 clears the roller 15 as already described, the spring swings the plate 11 downwardly, and causes the arm 15 to strike the screen.

The notched plate 11 holds the rod 8 stationary, and the latter serves to support the plate 13 as well as the spring 18. The length of the stroke of the arm 14, as well as the force of the blow delivered thereby, may be varied by rocking the rod 8, and adjusting its bent end 9 in the notches of the plate 11. If the device is not to be used it may be thrown into inoperative position, by swinging the plate 13 upwardly so as to carry the roller 15 out of the path of the tappets 16.

The roller 15 is mounted in an opening made in the plate 13 by slitting the same and bending the tongue 21 thus formed downwardly. This tongue also serves to support one end of the shaft 22 of the roller, the other end of the shaft being bent upwardly, and passed through an aperture in the plate, and projecting a short distance above the same. The projecting end is screw threaded to receive a nut 23 which secures this end of the shaft. On the end of that portion of the shaft which is beneath the plate is screwed a nut 24. By this structure a simple and convenient means is had for supporting a roller, and adjustment may be made by tightening or loosening the nuts. The spring 18 is so tensioned that the arm 14 may rebound after it has struck the screen, so that it will not rub or ride over the same.

Having thus described the said invention, what we claim as new and desire to secure by Letters Patent is:—

1. The combination with a rotary screen,

of a support, a rod rotatably mounted thereon, and having at one of its ends a lateral bend, a plate hinged on the rod, and swinging in the direction of the screen, tappets on the screen, an abutment on the plate in the path of the tappets, a knocker arm carried by the plate, a spring coiled around the rod, and connected at one end to the plate and at the other end to the lateral bend of the rod, and means for locking the rod against rotation.

2. The combination with a rotary screen, of a support, a rod rotatably mounted thereon, and having at one end a lateral bend, a plate hinged on the rod, and swinging in the direction of the screen, tappets on the screen, an abutment on the plate in the path of the tappets, a knocker arm carried by the plate, a spring coiled around the rod, and connected at one end to the plate, and at the other end to the lateral bend of the rod, and a notched plate on the support engageable by said lateral bend for locking the rod against rotation.

3. The combination with a rotary screen, of a support, a rod mounted on said support, a plate hinged on the rod, and having an opening formed by slitting the plate and bending the tongue thus formed outwardly from the plate, a roller mounted in the opening, a shaft on which the roller is mounted, said shaft being mounted at one end in the out-turned tongue, and having at its opposite end a lateral bend passing through the plate, and projecting thereabove, a nut screwed on the projecting end of the shaft against the plate, and tappets on the screen into the path of which the aforesaid roller extends.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

GEORGE P. BURKE.
PETER D. BURKE.

Witnesses:

C. A. BAKER,
W. H. BURKE.