H. M. BANGERT & J. A. OAKLEY.

TENNIS COURT MARKER.

APPLICATION FILED OCT. 22, 1908.

922,074.

Patented May 18, 1909.

3 SHEETS—SHEET 1.

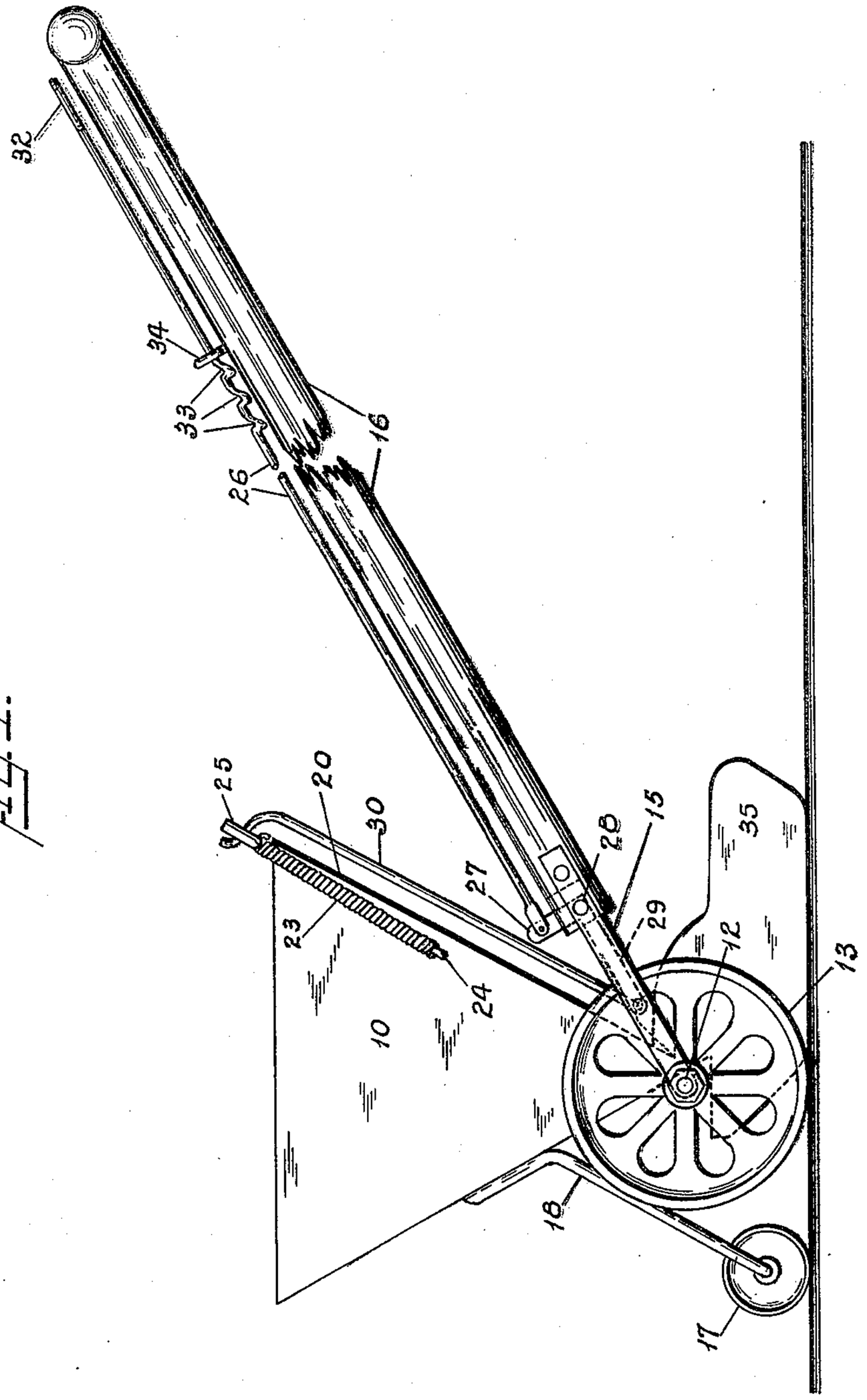

FIG. 1.

WITNESSES

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3 SHEETS—SHEET 2.

FIG. 3.

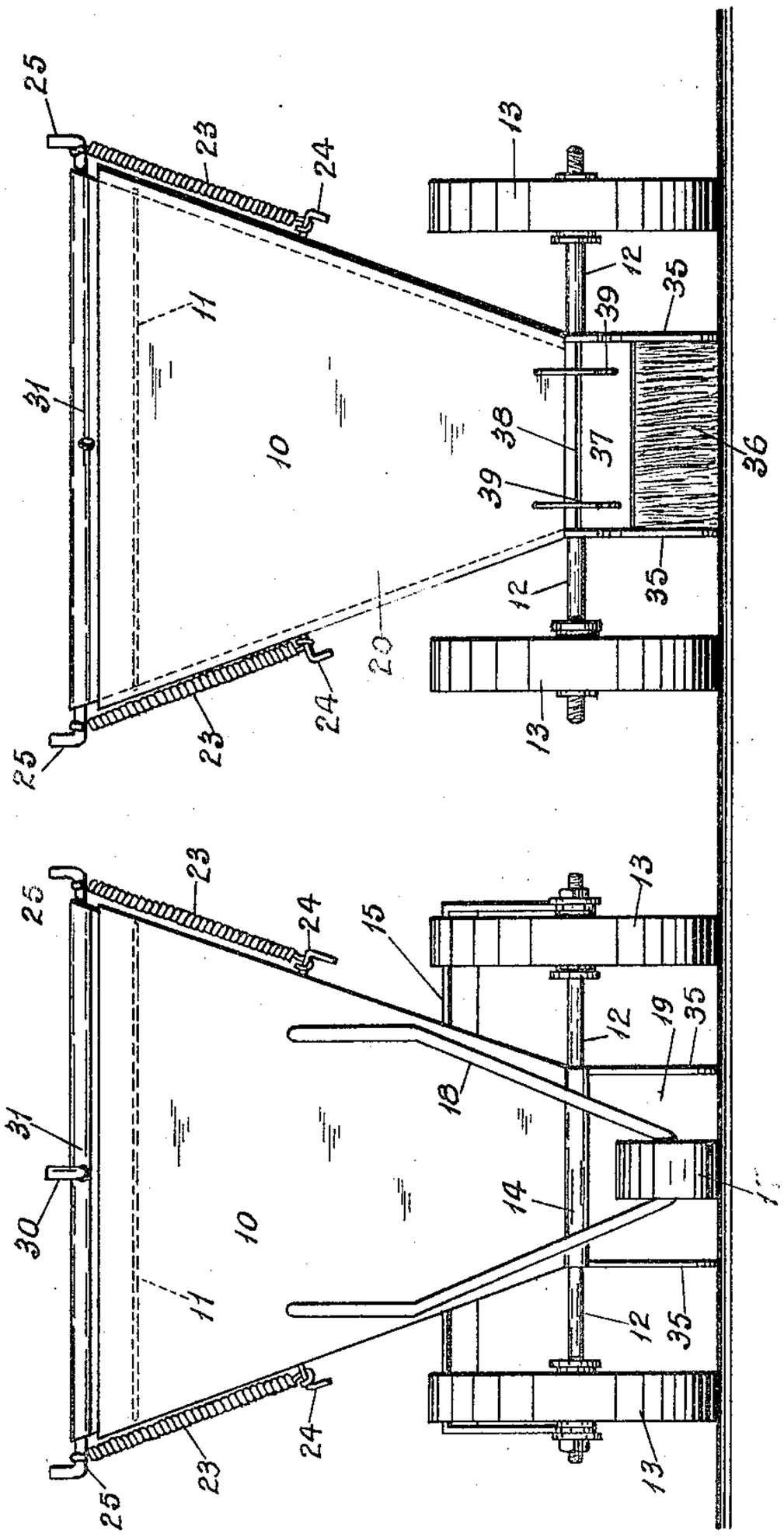
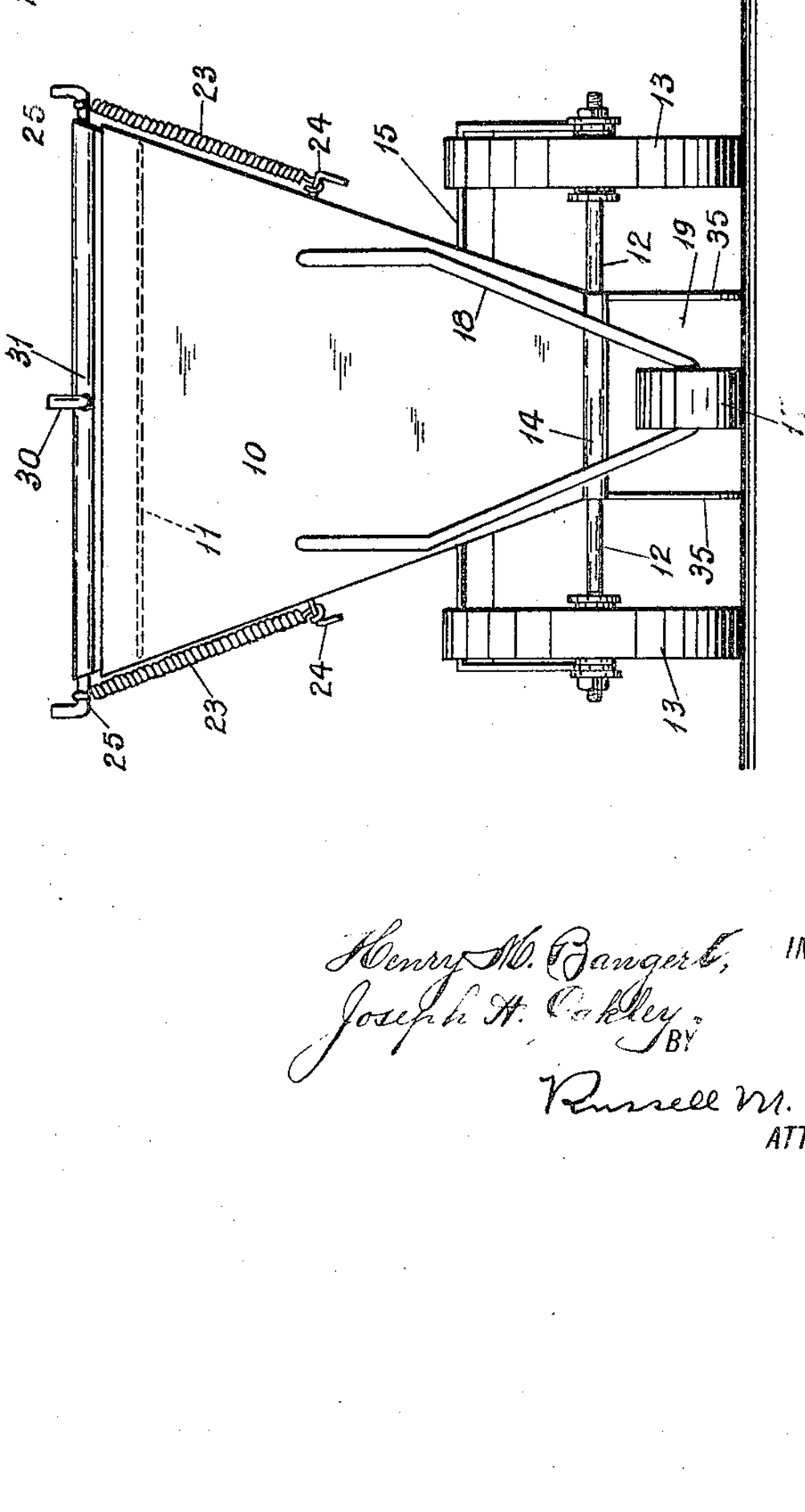


FIG. 2.



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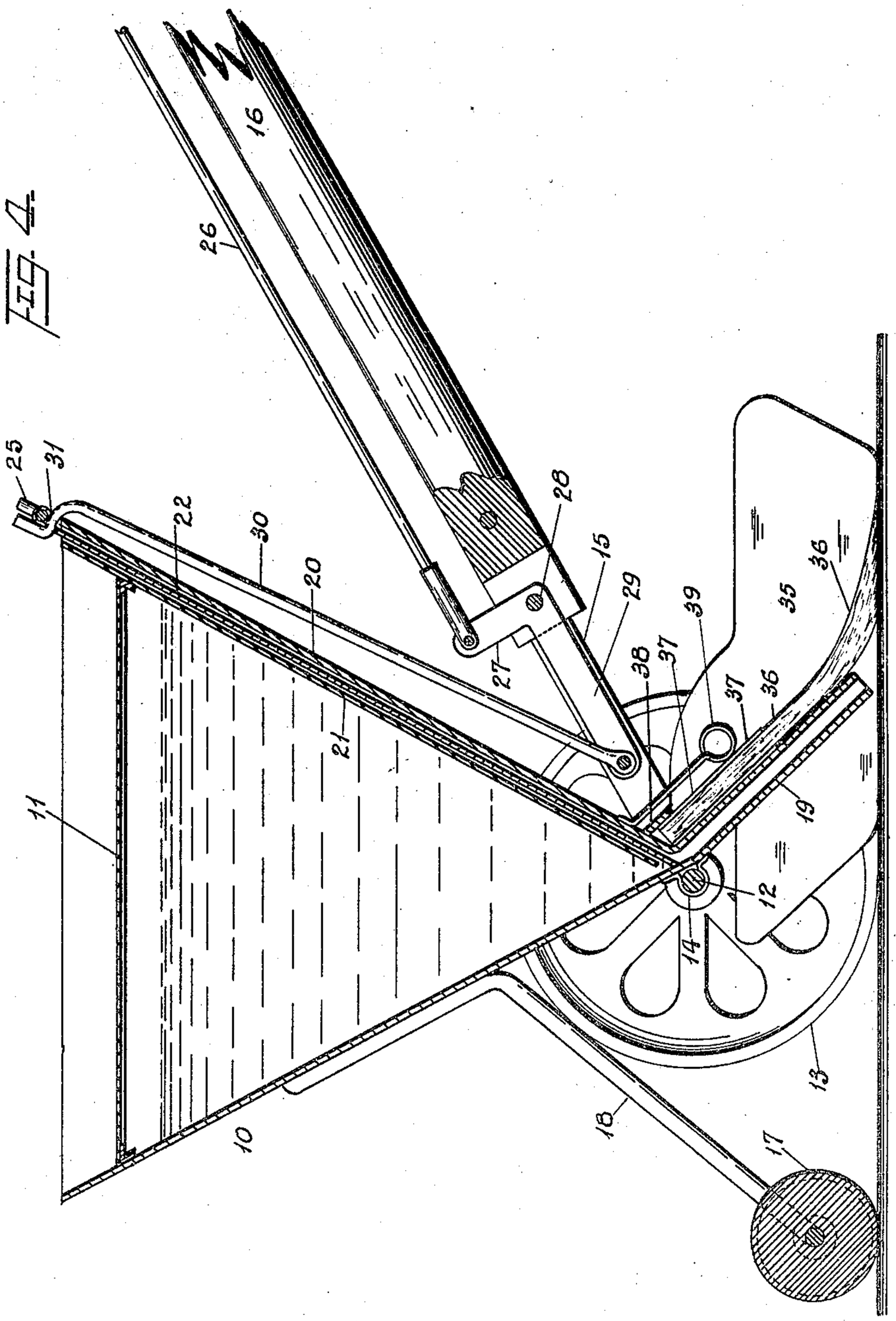
3 SHEETS—SHEET 3.

FIG. 4.



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UNITED STATES PATENT OFFICE.

HENRY M. BANGERT, OF ROSELLE PARK, AND JOSEPH A. OAKLEY, OF ELIZABETH, NEW JERSEY.

TENNIS-COURT MARKER.

No. 922,074. Specification of Letters Patent. Patented May 18, 1909.

Application filed October 22, 1908. Serial No. 459,062.

To all whom it may concern:

Be it known that we, HENRY M. BANGERT and JOSEPH A. OAKLEY, both citizens of the United States, residing at Roselle Park and Elizabeth, respectively, in the county of Union and State of New Jersey, have invented certain Improvements in Tennis-Court Markers, of which the following is a specification.

The objects of the invention are to secure a marker which can be used for applying white-wash or similar liquid to a tennis court; to secure an even regular marking; to enable the device to be used upon either dirt or grass courts; to provide means by which the operator can at all times control the flow of liquid; to confine the liquid as it is spread upon the ground; to prevent the device from picking up dirt or mixing dirt with the marking; to secure a simple, durable and efficient construction, and to obtain other advantages and results as may be brought out in the following description.

Referring to the accompanying drawings, in which like numerals of reference indicate the same parts in the several figures, Figure 1 is a view in side elevation of a tennis court marker of our improved construction; Fig. 2 is a front view of the same; Fig. 3 a rear view with the entire handle and gate-controlling means removed for the sake of greater clearness; and Fig. 4 is a central vertical section of the device, taken longitudinally from front to rear.

In said drawings, 10 indicates the body portion of our improved marker, which is preferably made of sheet metal or the like and adapted to contain liquid white-wash of the proper consistency. Said body 10 is preferably V-shaped in side view and in front or rear view tapers downwardly to about the width of the mark which is to be made. Said body thus comes to an edge at its bottom, but the top is large and open to receive the liquid whitewash. Preferably said top is provided with a cover 11 of wire screening, which may be removably supported by any suitable means inside of the body and at a little distance below its upper edges. This screen serves to indicate the consistency of whitewash to be used, and also serves as a strainer to prevent leaves and other foreign matter from getting into the whitewash. The said body 10 is suitably supported at or near its bottom upon an axle 12, disposed parallel to the bottom edge of the body 10, and having at its opposite ends wheels 13, 13 upon which the device may be pushed around. We have shown the said axle 12 as attached directly to the forward side of the body close to its bottom, by means of straps 14 soldered or similarly secured to the body, but obviously any other equivalent means could be employed.

A U-shaped bail 15 engages at its opposite ends the axle 12 outside of the wheels 13, said engagement being pivotal, and extends rearward to a handle 16 projecting rearwardly upward from the center of the width of the marker, and adapted to be grasped by an operator to push the marker along upon the ground. A third wheel 17 is supported at the front of the body and centrally thereof by means of a bracket 18 projecting from the said body 10, and which serves to preserve said body in suitably upright position as the device is pushed by its handle 16.

From the bottom of the body 10 a discharge duct 19 extends rearwardly downward with its lower end adapted to lie in close proximity to the ground or surface upon which the wheels 13 run. This discharge duct 19 is rectangular in cross section, being of the width of the mark which is to be made on the ground and of a thickness which will permit the flow of the amount of whitewash necessary to make such mark. In the marker shown in the drawing, the discharge duct 19 is of the same width as the bottom edge of the body 10 and opens thereinto to receive whitewash therefrom. Obviously, however, the discharge duct might be of different width than the body portion 10.

Adjacent to the inner side of the rear wall 20 of the body portion 10 is arranged a false wall 21 or other equivalent guiding means adapted to form with said rear wall a slideway open at its bottom. In this slideway is arranged a gate 22, which when slid downward engages at its lower edge the opposite or forward wall of the body portion 10, and thus closes the outlet for whitewash to the discharge duct 19. This gate 22 is held normally closed by means of springs 23, 23 attached to the outside of the body portion, as at 24, at their lower ends and at their upper ends being attached to projecting portions 25 of the gate. The gate is thus normally closed against the escape of whitewash. For opening the said gate 22 to permit an

outflow of whitewash, we have arranged longitudinally upon the handle 16 a draft rod 26 pivotally connected at its lower end to one arm of a bell-crank lever 27 fulcrumed on the handle, as at 28, and adapted to have its other arm 29 thrown upwardly by draft upon the said rod 26. The said arm 29 of the bell-crank lever is pivoted to a rod 30 which extends upward at the rear of the body portion 10 and engages at its upper end a portion 31 of the gate 22 which projects above the slideway for said gate. The draft rod 26 is provided with a finger-piece 32 and thus when pulled by the operator, the gate 22 can be opened. Preferably said draft rod is provided with a series of projections 33 adapted to be hooked over a stop 34 on the handle 16, so that the gate 22 may be held open a greater or less degree, as desired.

At each lateral edge of the discharge duct 19 is a vertical plate 35 attached thereto by soldering or any other suitable and equivalent fastening means. These plates 35 run at their lower edges upon the ground, and extend far enough forward and rearward of the said discharge duct 19 to confine laterally the stream of whitewash issuing from said discharge duct. A brush 36 is also laid flat upon the rear side of the discharge duct 19, between the two side plates 35, 35, the bristles of which extend downward beyond the discharge duct and bend rearwardly into approximately horizontal position to follow along upon the top of the stream of whitewash issuing from said discharge duct 19. This brush 36 is held in position by its upper end or head 37 lying beneath a flange 38 on the rear wall of the body 10, and also by resilient arms or springs 39 extending from said body to press downward upon the brush head near its lower edge. The said brush 36 is thus held resiliently and removably in the position shown.

By the construction thus described, a stream of whitewash of cross-sectional proportions necessary to produce the desired marking issues as the device is pushed along the ground, said stream being confined laterally by the side plates 35, 35 and being smoothed down and pressed into firm contact with the ground by means of the brush 36. Said brush however, does not in practice engage the ground itself, the stream of whitewash being always between the brush and the ground. The brush therefore does not pick up dirt nor mix dirt with the whitewash, but simply smooths down the stream of whitewash against and upon the ground. At the same time, the side plates 35, 35 prevent its spreading too readily and too far laterally. A very even and neat appearing mark is thus secured, and one which can be effectively applied to either dirt or grass courts.

Having thus described the invention, what we claim is:

1. In a tennis court marker, the combination of a body portion adapted to contain whitewash, a discharge duct leading rearwardly and downwardly from said body portion, a brush at the rear of and above said discharge duct having its bristles projecting therebeyond and adapted to confine from above a stream issuing from said discharge duct, and means for supporting and propelling said body portion.

2. In a tennis court marker, the combination with a body portion adapted to contain whitewash, means for supporting and propelling said body portion, a discharge duct leading from said body portion adjacent to the ground surface upon which said body portion travels, means for laterally confining a stream of whitewash after it issues from said discharge duct, and a brush adapted to engage said stream of whitewash at its opposite side from the ground.

3. In a tennis court marker, the combination of a body portion adapted to contain whitewash, a discharge duct leading rearwardly and downwardly from said body portion, side plates at opposite sides of said discharge duct adapted to engage at their lower edges the ground, and means for supporting and propelling said body portion.

4. In a tennis court marker, the combination of a body portion adapted to contain whitewash, a horizontally flattened discharge duct leading rearwardly and downwardly from said body portion, side plates secured at opposite edges of said discharge duct and extending both forward and rearward of the same and adapted to engage at their lower edges the ground, and means for supporting and propelling said body portion.

5. In a tennis court marker, the combination of a body portion adapted to contain whitewash, a discharge duct leading rearwardly and downwardly from said body portion, side plates at opposite sides of said discharge duct adapted to engage at their lower edges the ground, a brush at the rear of said discharge duct extending downward therebeyond, and means for supporting and propelling said body portion.

6. In a tennis court marker, the combination of a body portion adapted to contain whitewash, a discharge duct leading rearwardly and downwardly from said body portion, side plates at opposite sides of said discharge duct adapted to engage at their lower edges the ground, a brush resiliently and removably mounted upon the rear wall of said discharge duct and projecting beyond the lower end of the same, and means for supporting and propelling said body portion.

7. In a tennis court marker, the combination of a body portion adapted to contain

liquid and having a transverse outlet slit at its bottom adjacent to one side wall, a slideway upon the inner side of said wall, a gate in said slideway adapted to close said outlet slit, a fluid discharge duct leading from said outlet slit rearwardly downward, wheels mounted on said body portion holding said discharge duct adjacent to the ground, upright plates at opposite sides of said discharge duct, extending longitudinally of the marker and adapted to engage the ground at their lower edges, a brush between said side plates at the rear of said discharge duct adapted to confine from above a stream issuing from said duct, a handle, and means for holding said gate in predetermined positions.

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In the presence of—
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