

No. 713,333.

Patented Nov. 11, 1902.

F. McDANIELS.
SHADE CLOTH TRIMMER.

(Application filed July 21, 1902.)

(No Model.)

2 Sheets—Sheet 1.

FIG. 2.

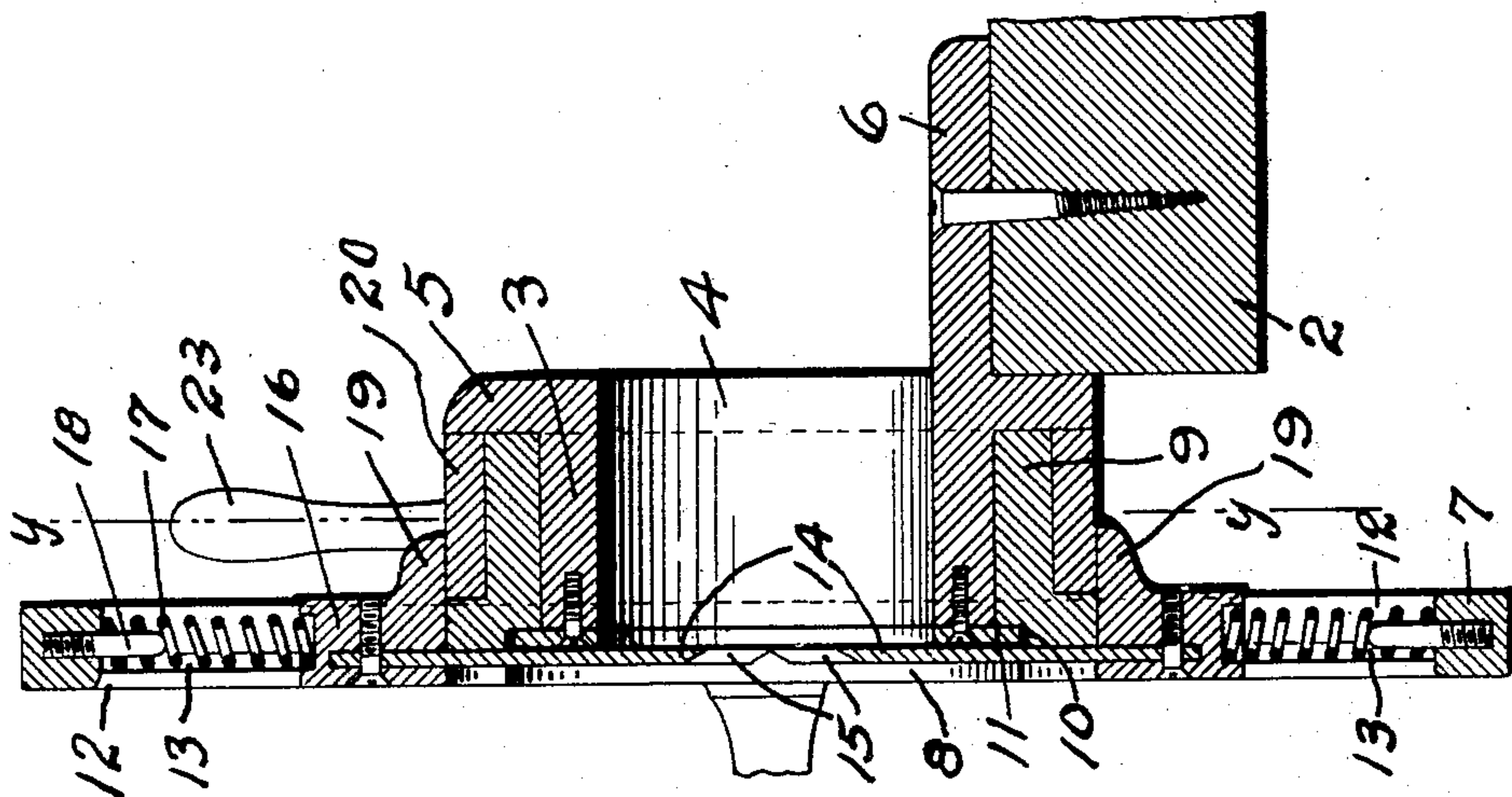
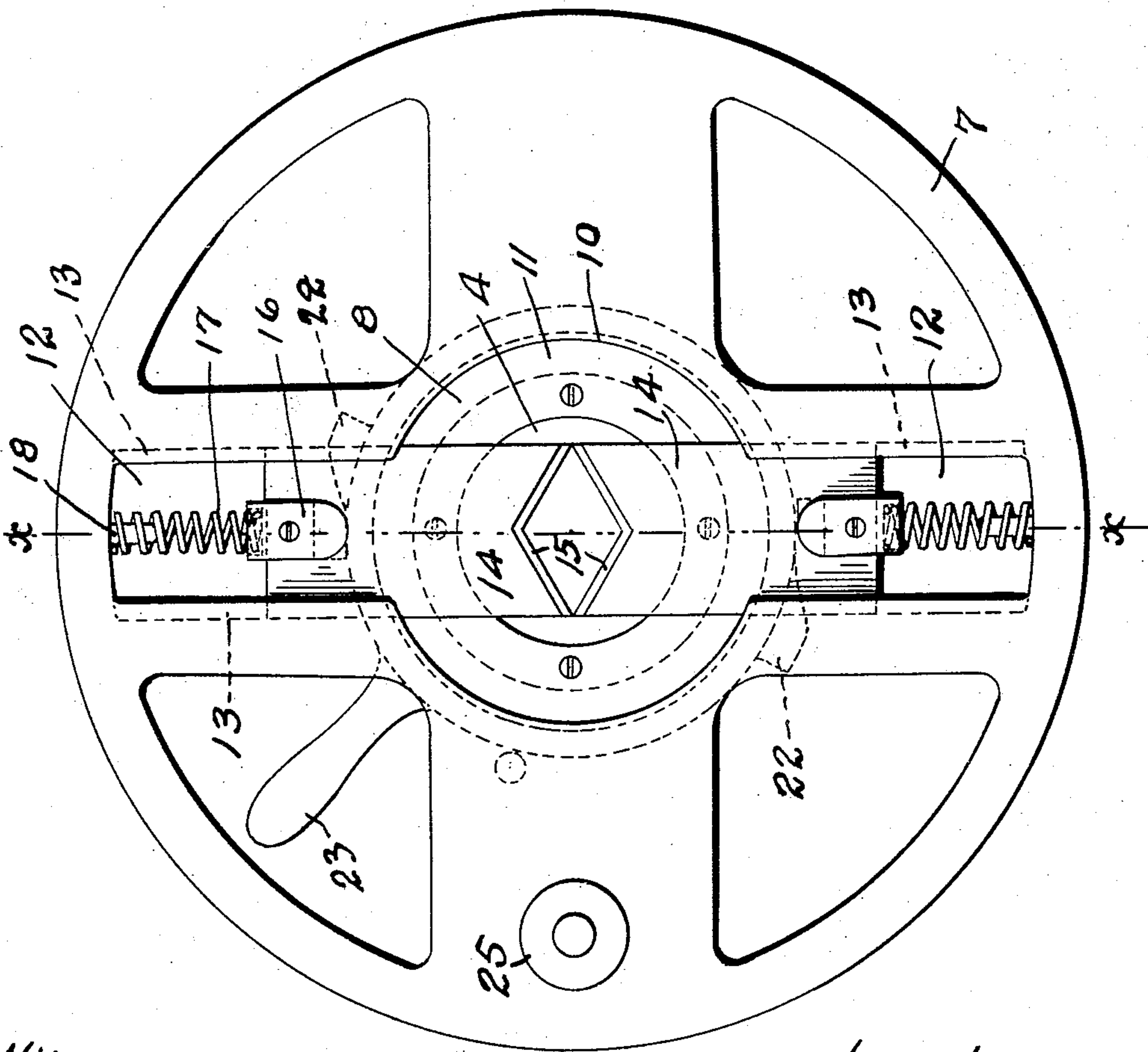


FIG. 1.



Witnesses
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M. C. Thomas

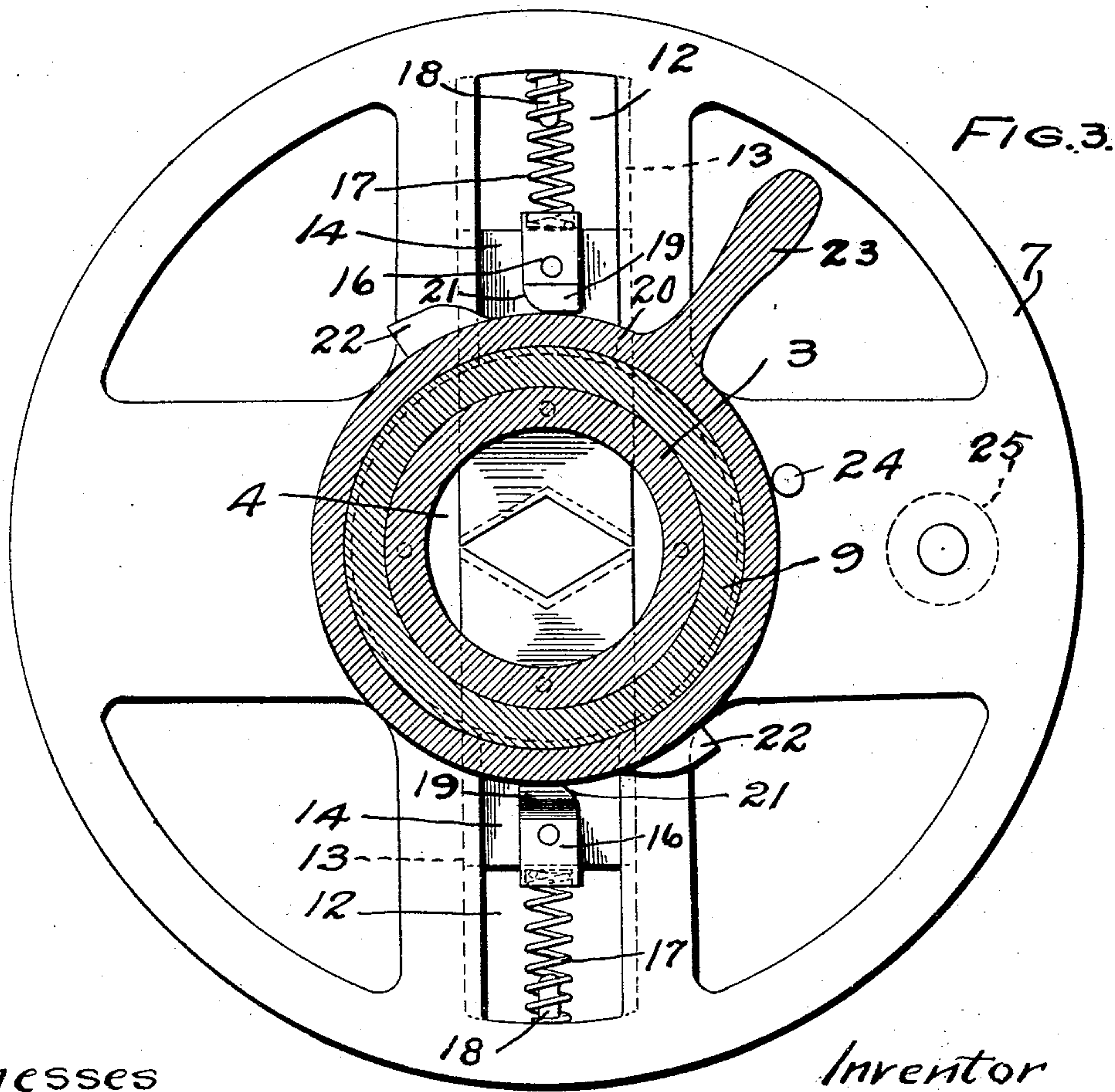
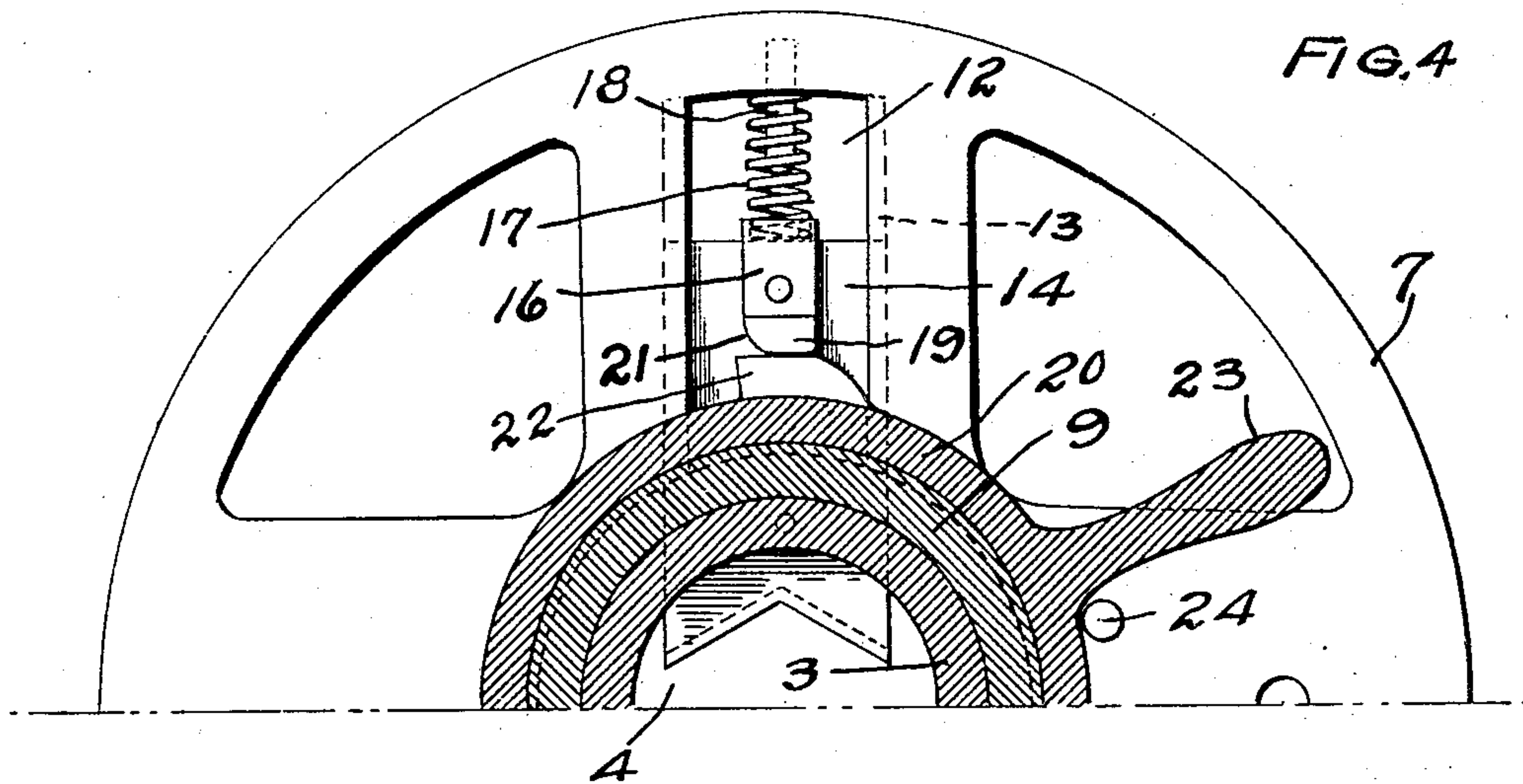
Inventor
Frank M. Daniels
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2 Sheets—Sheet 2.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANK McDANIELS, OF MINNEAPOLIS, MINNESOTA.

SHADE-CLOTH TRIMMER.

SPECIFICATION forming part of Letters Patent No. 713,333, dated November 11, 1902.

Application filed July 21, 1902. Serial No. 116,372. (No model.)

To all whom it may concern:

Be it known that I, FRANK McDANIELS, of Minneapolis, Hennepin county, Minnesota, have invented certain new and useful Improvements in Shade-Cloth Trimmers, of which the following is a specification.

The invention relates to devices for trimming shades without removing the cloth from the roll. Mechanisms for this purpose have been made heretofore, but have proved objectionable, owing to the fact that it was necessary to turn the roll to trim the edge of the cloth after the roll had been placed in the machine, and it was found extremely difficult if not impossible to do so, particularly when girls or boys were employed for the work, without swinging the roll either up or down or to one side and causing an uneven trimming of the cloth.

The object, therefore, of my invention is to provide an apparatus by means of which the shade-cloth can be quickly and evenly trimmed and the trimming device operated by inexperienced help.

A further object is to provide a trimming apparatus by means of which the cloth can be trimmed much more quickly than with the devices heretofore employed.

The invention consists generally in a revolving member having a hole or opening to receive the end of the roll, knives yieldingly mounted on said member and adapted to be separated to permit the roll to be thrust between, and means for separating the knives.

Further, the invention consists in various constructions and combinations, all as hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a front elevation of a shade-cloth trimmer embodying my invention. Fig. 2 is a vertical section on the line xx of Fig. 1. Fig. 3 is a section on the line yy of Fig. 2. Fig. 4 is a similar view of a portion of the device, showing the knives separated ready to receive the roll.

In the drawings, 2 represents a section of a table or bench, 3 a barrel having a central opening 4, an annular flange 5, depending beside the edge of the table 2, and a lip or extension 6, that extends over the surface of the

table and is secured thereto by any suitable means.

7 represents a disk having a central opening 8 to coincide with the opening in the barrel, and a hub 9, adapted to slip over said barrel and revolve freely thereon. An annular recess 10 is provided in said hub, and a ring 11, secured to the end of the barrel, laps over into said recess and prevents the hub from slipping off the barrel, while allowing it to revolve freely thereon. Upon the opposite sides of the hole or opening 8 I provide radial slots 12, having guideways 13 for knives 14, that project into the opening 8 and have V-shaped recesses 15 in their cutting edges, forming a diamond-shaped opening when the knives are in their normal projected position. Each knife is provided with a block 16, secured thereto by screws or other suitable means and movable in the slots 12 and with said knives normally held forward by springs 17, whose outer ends inclose pins 18, provided on the disk 7 at the outer ends of said slots. The blocks 16 on one side are provided with lugs 19, partially overlapping a ring 20, that is loosely mounted on the hub. The lugs 19 have rounded faces 21 on one side, and cam-faced projections 22 are provided on the ring 20, in position to engage the inclined faces 21 when said ring is revolved and move said lugs and the knives out from the center of the disk against the tension of the springs 17. As the knives are withdrawn toward the circumference of the disk the opening in the center thereof will be fully exposed and the insertion of the end of the roll permitted. A handle 23 is provided on the ring 20 to be grasped by the operator to move the ring, and a stop 24 in the face of said disk limits the movement of the ring in one direction, this stop being arranged at such a point that when struck by the handle 23 the lugs 21 and 22 will be in engagement with each other and the trimming-knives withdrawn to the limit of their outward movement. A handle 25 is preferably provided on the disk 7, by means of which the disk can be conveniently revolved during the operation of trimming.

To operate the device, the ring 20 is revolved sufficiently to bring the cam-faced lugs 22 into engagement with the lugs 19 and force the knives away from the center to al-

low the end of the shade-roll to be inserted into the barrel and the hole 8 in the disk. As soon as the roll has been adjusted the ring is moved back to its normal position, releasing the knives and allowing their V-shaped cutting edges to clamp the opposite sides of the roll. The disk is then revolved, moving the knives around the surface of the roll and accurately and evenly trimming the edge of the cloth. During the time that the edge of the cloth is being trimmed the roll will be held stationary and there will be no possibility of its swinging in either direction and causing the knives to be deflected from their cut in the cloth.

I claim as my invention—

1. The combination, with a revolving member having a hole wherein the end of the shade-cloth roll is inserted, of yieldingly-held knives having V-shaped cutting edges normally closing said hole, and means for separating said knives to permit the insertion of the roll between them.

2. The combination, with a revolving member having a hole wherein the end of the shade-cloth roll is inserted, of knives carried by said member upon opposite sides of said hole, springs for normally holding said knives projected toward the center of said hole, and a mechanism operable independently of said revolving member for withdrawing said knives against the tension of said springs to permit the insertion of a roll between them.

3. The combination, with a revolving member having a hole wherein the end of the shade-cloth roll is inserted, of yieldingly-held knives normally projected toward the center of said hole, lugs provided on said knives, a rotating cam device adapted to engage said lugs and separate said knives to permit the insertion of the roll into said hole and means for limiting the movement of said cam device.

4. The combination, with a barrel or hub, of a disk revolvably mounted thereon and having a hole or opening registering with the opening therein, radially-movable knives slidably mounted in said disk upon opposite sides of said hole, springs for normally holding said knives projected toward the center of said hole, and means for separating said knives to allow the end of a roll to be inserted between them.

5. The combination, with a hub or barrel having a central opening of a disk revolvably mounted thereon and provided with an opening registering with the opening in said barrel, of knives mounted in guides upon opposite sides of the opening in said disk, springs for normally holding said knives projected toward the center of said opening, laterally-projecting lugs provided upon said knives, and a rotating cam device adapted to engage said lugs and force said knives apart and permit a shade-cloth roll to be inserted between them.

6. A shade-cloth trimmer, comprising a revolving member having an opening to receive

the end of a shade-cloth roll, reciprocating knives mounted in said member and normally projected into said opening, and a mechanism within control of the operator arranged to engage said knives and simultaneously withdraw them from said opening to permit the insertion of the roll.

7. A shade-cloth trimmer, comprising a barrel 3 provided with a flange 5 and a lip 6 and a central opening 4, a disk 7 having a hub loosely mounted on said barrel and adapted to revolve thereon, said disk being provided with an opening coinciding with the opening in said barrel, knives having V-shaped cutting edges mounted in said disk upon opposite sides of the opening therein, springs normally holding said knives projected into said opening, lugs provided on said knives, and a ring 20 loosely mounted on said barrel and provided with cam-faced lugs to engage the lugs on said knives, substantially as described.

8. A shade-cloth trimmer, comprising a revolving member having an opening to receive the end of a shade-cloth roll, in combination with radially-movable knives slidably mounted in said member, and means for normally holding said knives projected partially across said opening but permitting their withdrawal to insert the roll between them.

9. A shade-cloth trimmer, comprising a revolving member having an opening to receive the end of a shade-cloth roll, two spring-pressed knives slidably mounted between guides on said member with their cutting edges normally projecting partially across said opening, and means within control of the operator for simultaneously withdrawing said knives to permit the insertion of a roll between them.

10. The combination, with a revolving member having a hole wherein the end of a shade-cloth roll is inserted, of knives having V-shaped cutting edges slidably arranged between guides on said member upon opposite sides of the hole therein, and springs for normally pressing said knives into said hole.

11. A shade-cloth trimmer, comprising a barrel 3, a disk 7 having a hub loosely mounted on said barrel and adapted to revolve thereon, said disk being provided with an opening coinciding with the opening in said barrel, knives having V-shaped cutting edges mounted in guides on said disk upon opposite sides of the opening therein, springs normally holding said knives projected into said opening, lugs provided on said knives, and a ring loosely mounted on said barrel and having cam-surfaces arranged to engage said lugs to separate said knives against the tension of said springs, for the purpose specified.

In witness whereof I have hereunto set my hand this 12th day of July, 1902.

FRANK McDANIELS.

In presence of—

RICHARD PAUL,
M. C. NOONAN.