

No. 766,986.

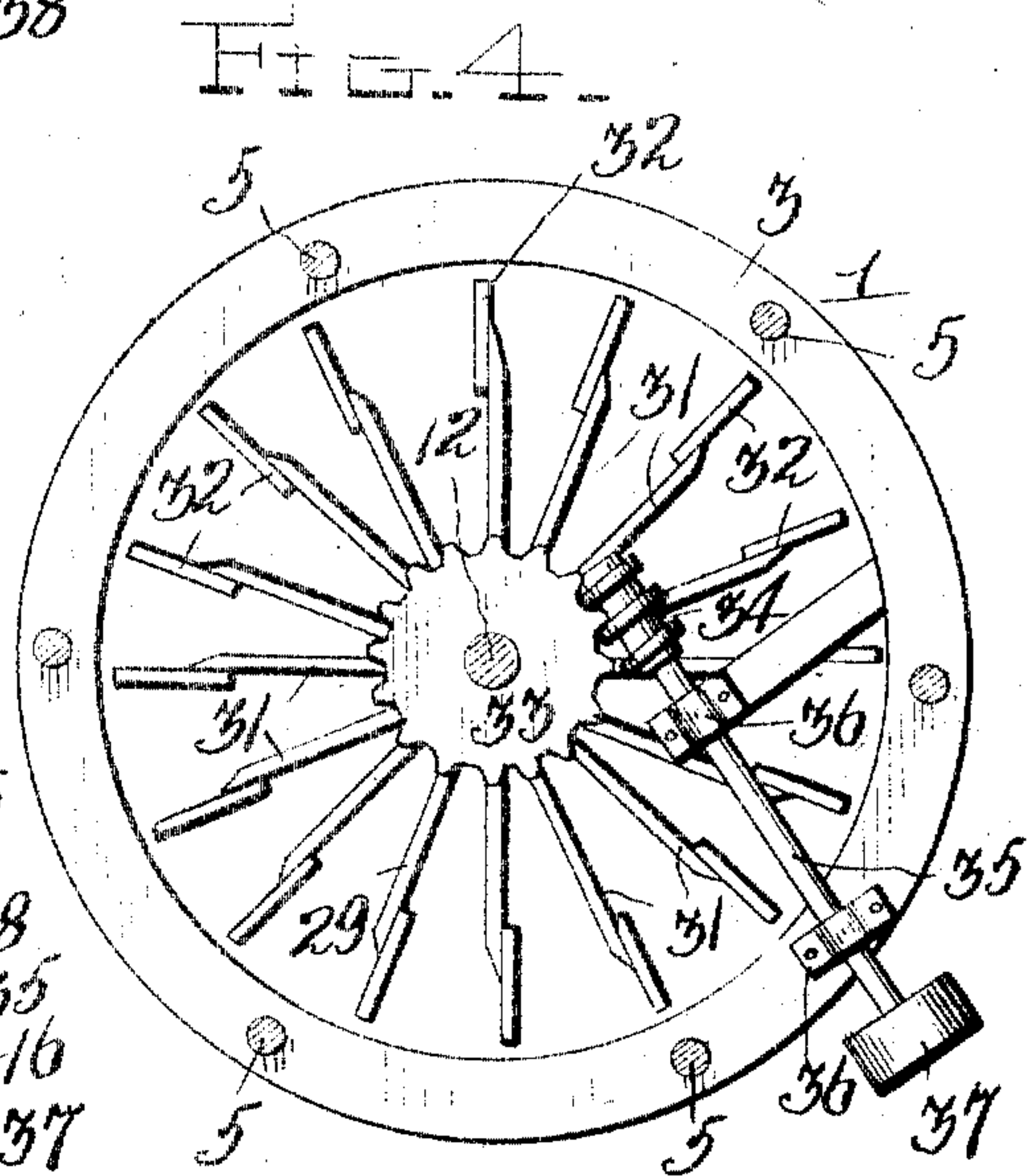
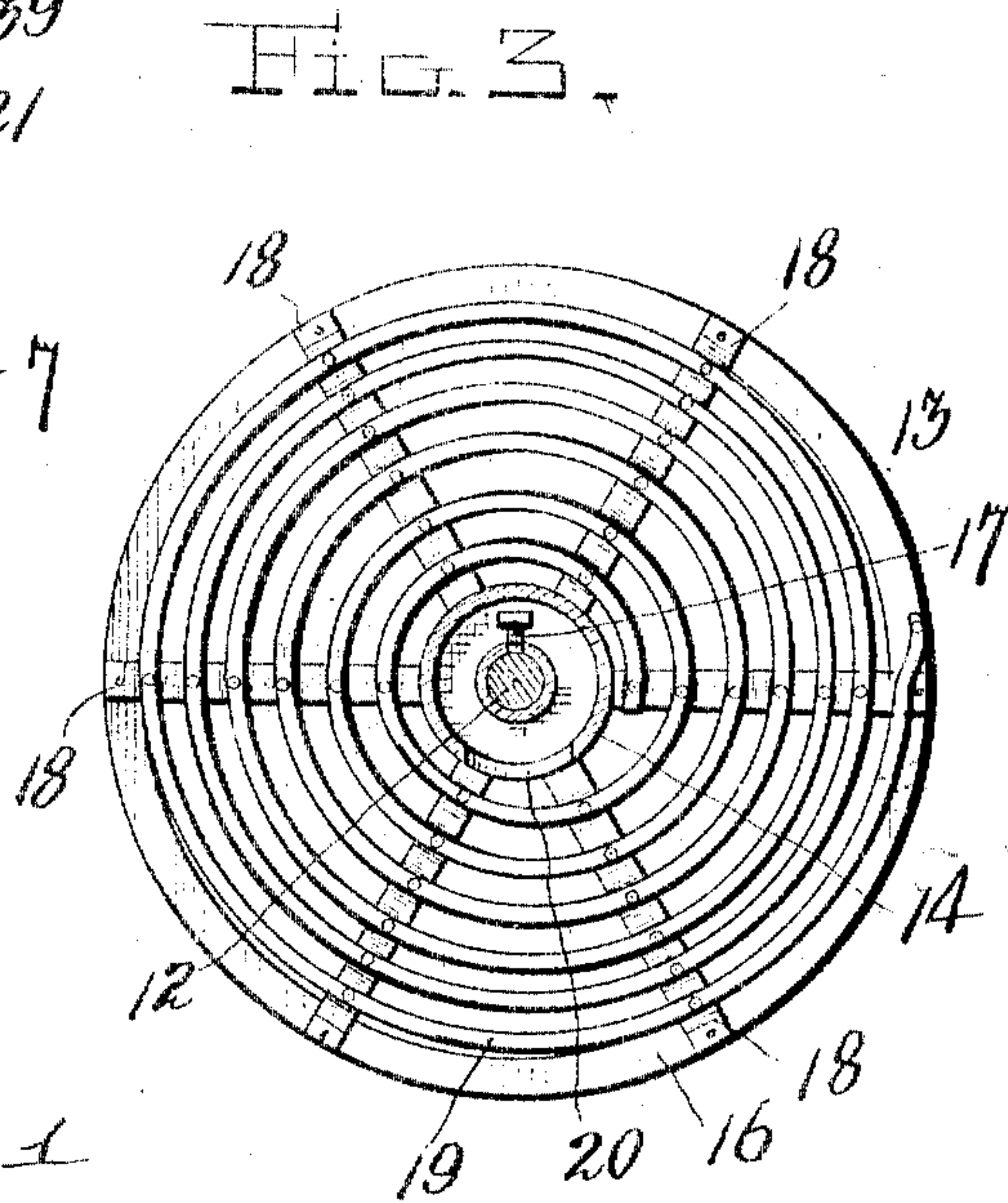
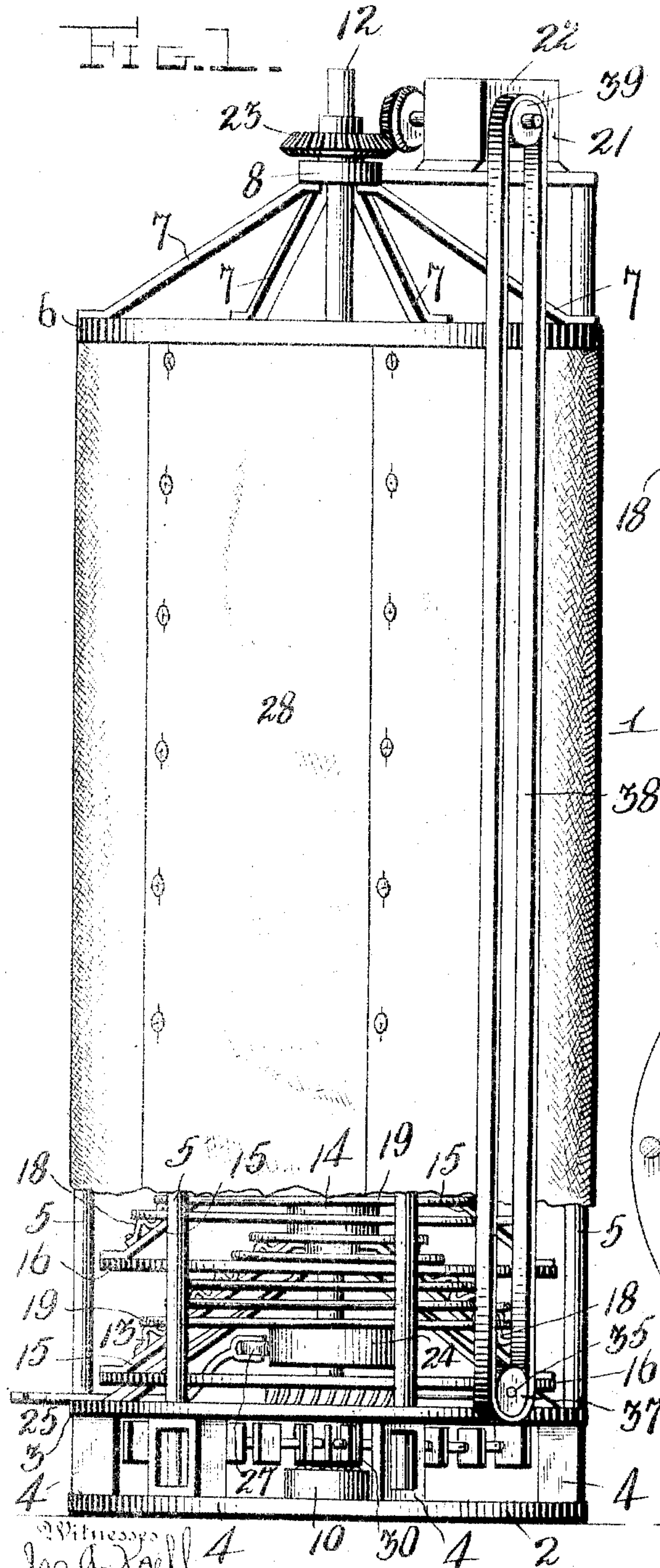
PATENTED AUG. 9, 1904.

C. M. BOWMAN.  
HOSE DRIER.

APPLICATION FILED APR. 7, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



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Witnesses  
Jas A. Koell  
*L. B. Hilton*



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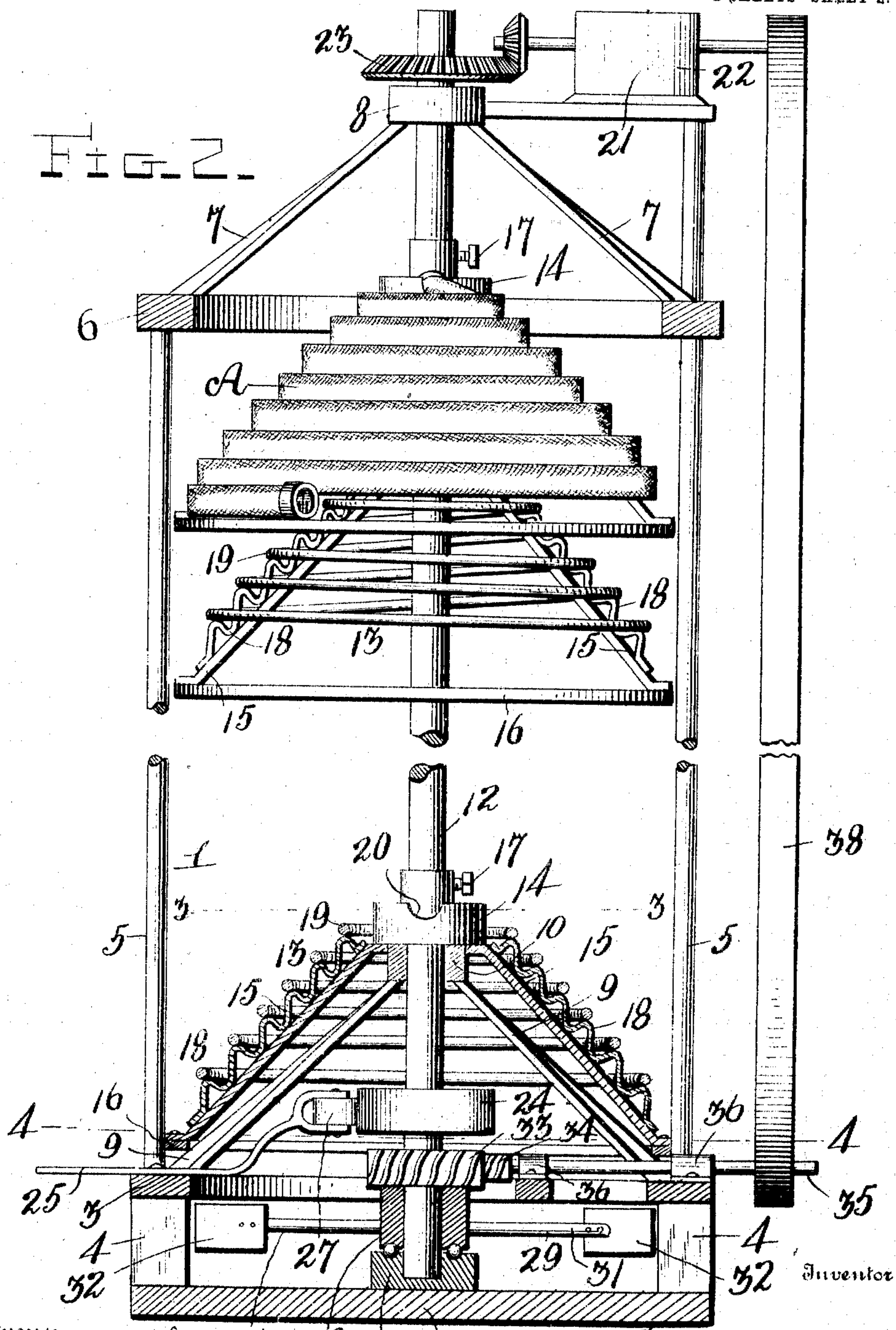
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## HOSE DRIER.

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NO MODEL.

2 SHEETS—SHEET 2.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## HOSE-DRIER.

SPECIFICATION forming part of Letters Patent No. 766,986, dated August 9, 1904.

Application filed April 7, 1904. Serial No. 202,073. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES M. BOWMAN, a citizen of the United States, residing at Lebanon, in the county of Lebanon and State of Pennsylvania, have invented certain new and useful Improvements in Hose-Driers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to hose-driers of that class in which the hose-sections are supported upon a rotary rack or stand in an inclosed casing while being subjected to the action of a drying medium.

The object of my invention is to improve and simplify the construction and operation of devices of this character, and thereby render them more compact in form and more effective in operation.

With this and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a side elevation of my improved hose-drier, a portion of its casing being broken away to show the hose-supporting frames or shelves. Fig. 2 is a vertical sectional view through the same. Fig. 3 is a horizontal sectional view taken on the plane indicated by the line 3 3 of Fig. 2. Fig. 4 is a similar sectional view taken on the plane indicated by the line 4 4 of Fig. 2.

Referring to the drawings by numerals, 1 denotes a suitable frame comprising a base 2, preferably circular in form, a ring 3, supported above said base by spacing-blocks 4, a series of uprights 5, projecting vertically from the upper side of said ring and arranged at suitable intervals around same, and an upper ring 6, connecting the upper ends of said uprights. Projecting inwardly and upwardly from said upper ring 6 is a series of arms 7, the upper ends of which are secured to a bearing 8, and projecting inwardly and upwardly from said lower ring 3 is a series of arms 9,

which have their inner ends secured to an alining brace-bearing 10. Mounted to rotate in said bearings 8 and 10 and also in a step-bearing 11 upon said base 2 is a vertical shaft 12, upon which a series of hose-supporting frames or shelves 13 are mounted. Each of said hose-supporting shelves 13 comprises a hollow open-top cylindrical hub or collar 14, a radial series of downwardly and outwardly projecting arms 15, and ring 16, uniting the outer ends of said arms. The collars 14 are mounted upon said shaft 12 and are preferably adjustably held thereon by set-screws 17. Upon the upper side of each of said arms 15 is riveted or otherwise secured a corrugated bar or rod 18, the corrugations in which form pockets or recesses to receive the coils of a hose A, as shown in Fig. 2. In order to guide a hose in said pockets, I provide a spiral guide-rod 19, which is riveted or otherwise secured to said corrugated bars, as shown, and in order to attach the inner end of the hose to the frame the collar 14 is formed with a semicircular recess 20, which is adapted to receive the coupling upon said end of the hose. It will be understood that any number of these hose-supporting shelves or frames may be used and that each one is adapted to hold one length or section of hose. Owing to the fact that said shelves or frames are cone-shaped, the hose will be held at an incline to permit any water remaining in the same to drain out, and a large number of said frames may be secured upon the same shaft, since the upper end of one is disposed above the lower end of the adjacent shelf above.

The shelf 13 may be rotated in any suitable manner; but I preferably mount an electric motor 21, as shown at 22, upon the top of the frame 1. Any suitable gearing may be provided between the motor-shaft and said shaft 12. As shown, said shafts are provided with meshing beveled gears 23.

In order to control the speed of the shaft 12 when the hose-sections are being wound or unwound from the shelves 13, I provide a brake mechanism of any suitable form. In the drawings I have shown a friction-wheel 24 secured upon shaft 12 below said bearing 10



and a brake-lever 25 pivoted at 26 upon said ring 3 and having a friction-roller 27 journaled upon its inner end and adapted to engage the periphery of said friction brake-wheel 24.

5 The outer end of said lever 25 is provided with a handle which when moved in one direction will cause the friction-wheel upon its inner end to bear upon the brake-wheel 24, and thus check the rotation of the shaft 12.

10 The frame 1 is surrounded by a casing 28, preferably of fabric or other flexible material, made in sections, which extend between two adjacent uprights 5 and from said upper ring 6 to said lower ring 3. The upper and lower  
15 ends of the frame are thus opened, and in order to create a current of air or any other drying medium I provide a rotary fan 29 in the lower portion of the frame between said ring 3 and base 2. Said fan comprises a hub 30, loosely  
20 mounted upon said shaft 12, a series of radially-projecting spokes or arms 31, and blades 32 upon the outer ends of said arms. Said fan may be rotated in any desired manner; but I preferably provide upon its hub 30 a  
25 worm-wheel 33, which meshes with a worm 34 upon a horizontally-disposed shaft 35, mounted in bearings 36 upon the upper side of said ring 3. Said shaft 35 may be driven from the motor 21 or from any other suitable  
30 source; but, as shown in the drawings, said shaft is provided with a pulley 37, which is connected by a belt 38 to a pulley 39, secured upon the shaft of the motor 21.

The operation of my invention will be readily understood from the foregoing description, taken in connection with the accompanying drawings. When it is desired to apply a hose-section to one of the shelves 13, the coupling of said hose is engaged with the  
40 recess 20 in one of the collars 14, and as the rack or reel is rotated by means of the motor the length of the hose is guided into the pockets of said shelf by means of the guide 19, as will be readily seen. The speed of rotation  
45 of the rack or reel may be controlled by operating the brake-lever 25, so that the operator may apply or remove the hose-sections with ease. After the hose-sections are supported upon the shelves the casing 28 is closed,  
50 so that the fan 32 will create a downward draft through the device to cause the hose to be quickly dried. The drying action is greatly aided by the combined rotation of the rack or reel and the draft of air caused by the fan, and the rotation of the fan is preferably much  
55 faster than that of the rack or reel in order to increase this drying action.

From the foregoing description, taken in connection with the accompanying drawings,  
60 the construction and operation of the inven-

tion will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention. 65

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is— 70

1. A hose rack and drier, having a rotatable shaft and a hose-support upon said shaft, comprising a cone-shaped frame and spiral guide upon said frame, substantially as described. 75

2. A hose rack and drier having a rotatable shaft and a hose-support upon said shaft, comprising a cone-shaped frame having hose-receiving pockets, a spiral hose-guide for said pockets, and a hose-coupling holder at the center of said frame, substantially as described. 80

3. A hose rack and drier having a rotatable shaft and a hose-support upon said shaft, comprising a recessed hub or collar secured upon said shaft and adapted to receive a hose-coupling, a radial series of downwardly and outwardly projecting arms upon said hub, a ring connecting the outer ends of said arms, a corrugated bar upon each arm, forming hose-receiving pockets, and a spiral guide upon said bars, substantially as described. 85 90

4. In a hose-drier, the combination of a base, a ring spaced from said base, uprights upon said ring, an upper ring connecting the upper ends of said uprights, a casing surrounding said uprights, a rotary hose-supporting rack or reel upon said base within said casing, an exhaust-fan mounted upon said base below said spaced ring, and means for rotating said fan to create a downward draft through said casing and rack or reel, substantially as described. 95 100

5. In a hose-drier, the combination of a suitable frame, a casing surrounding said frame, a vertical shaft mounted in said casing, hose-supporting shelves or frames upon said shaft, an exhaust-fan in the lower portion of said frame for creating a downward draft through said casing, gearing for rotating said fan, a motor mounted upon the top of said frame, gearing between said motor and said shaft, and a driving connection between said motor and said fan-driving gearing, substantially as described. 105 110

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 115

CHARLES M. BOWMAN.

Witnesses:

HARRY RISSE,  
THOS. J. SHAAK.