

No. 786,106

PATENTED MAR. 28, 1905.

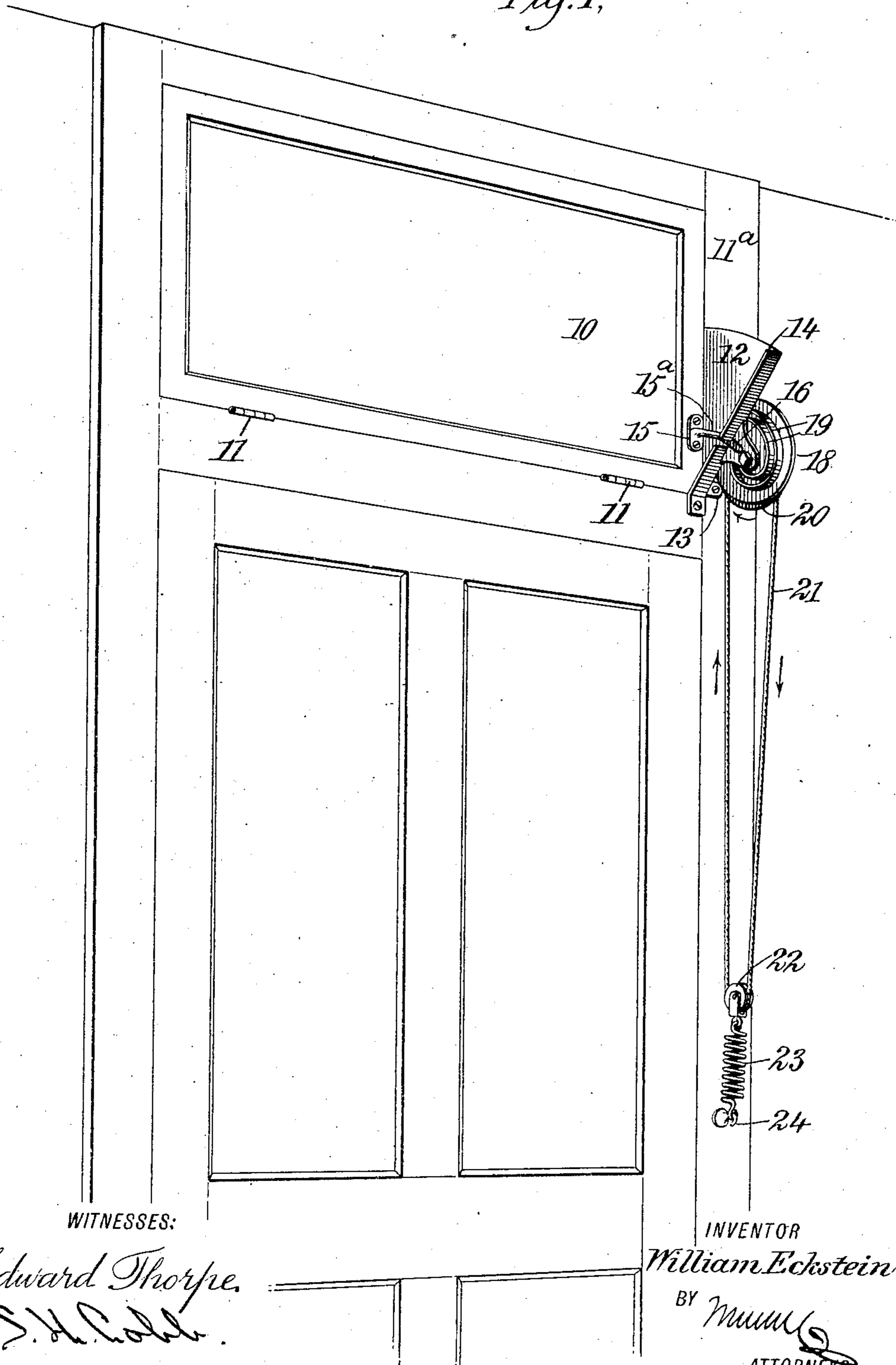
W. ECKSTEIN.

TRANSOM OPERATOR.

APPLICATION FILED OCT. 14, 1904.

2 SHEETS—SHEET 1

Fig. 1,



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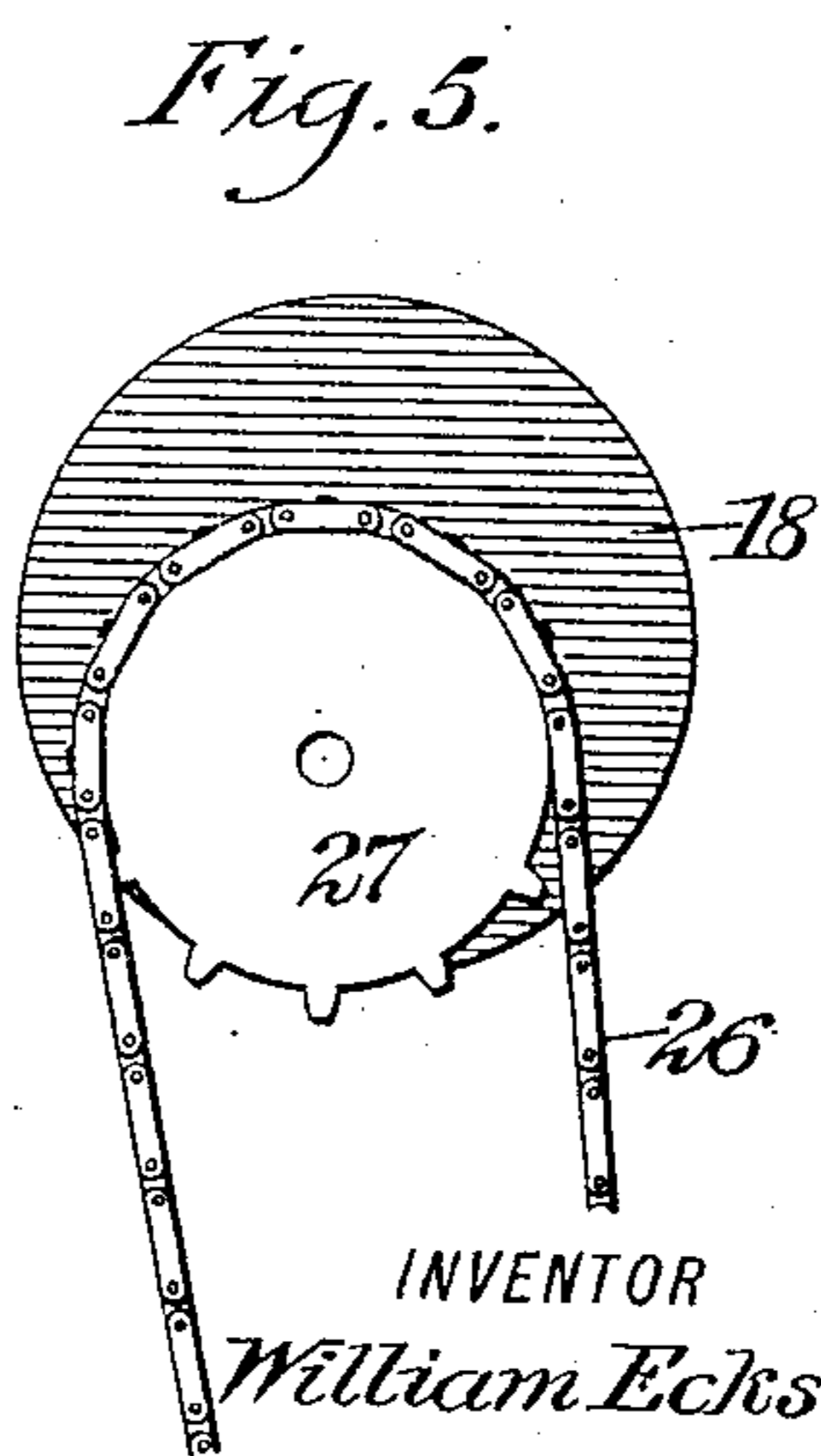
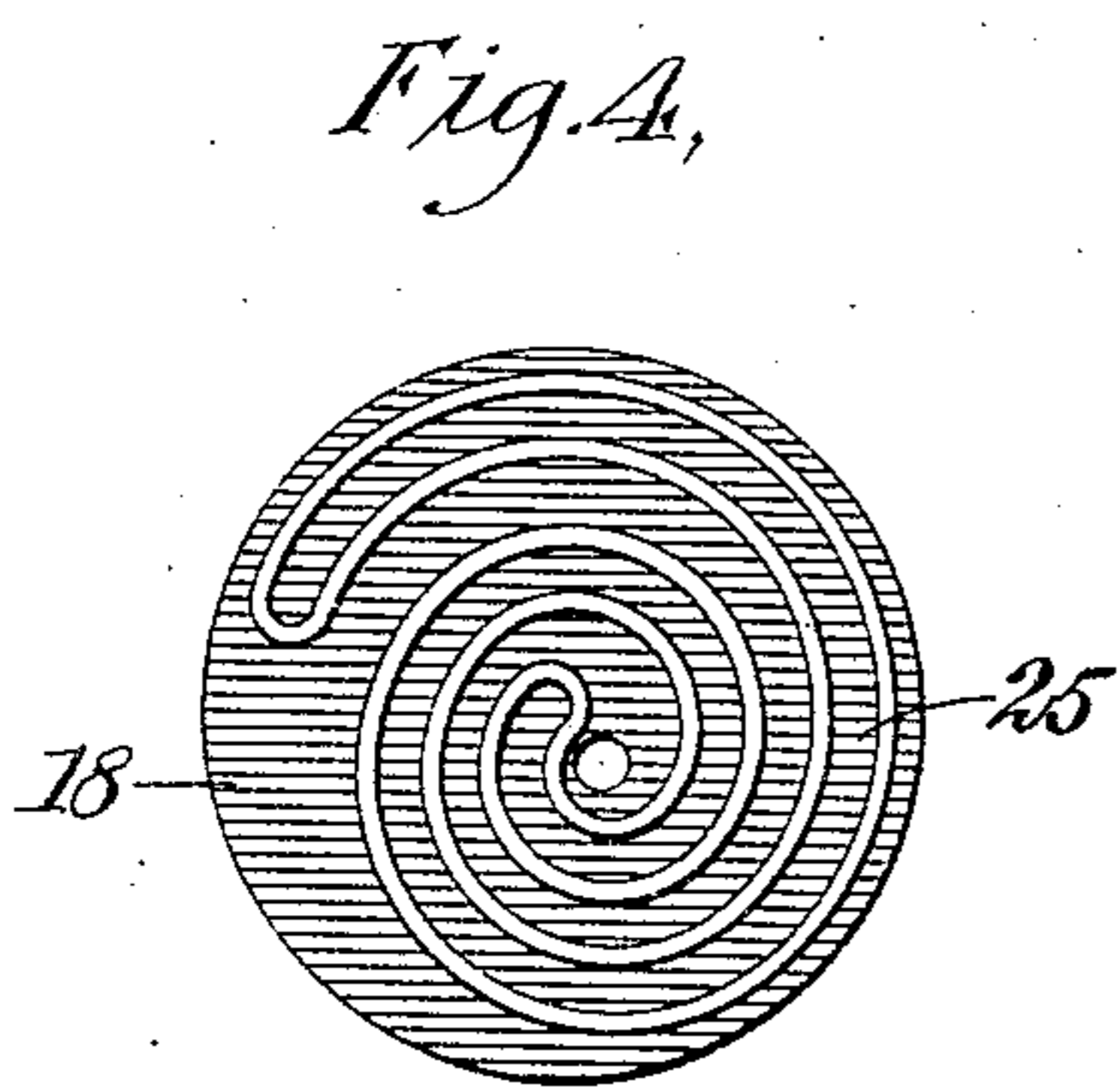
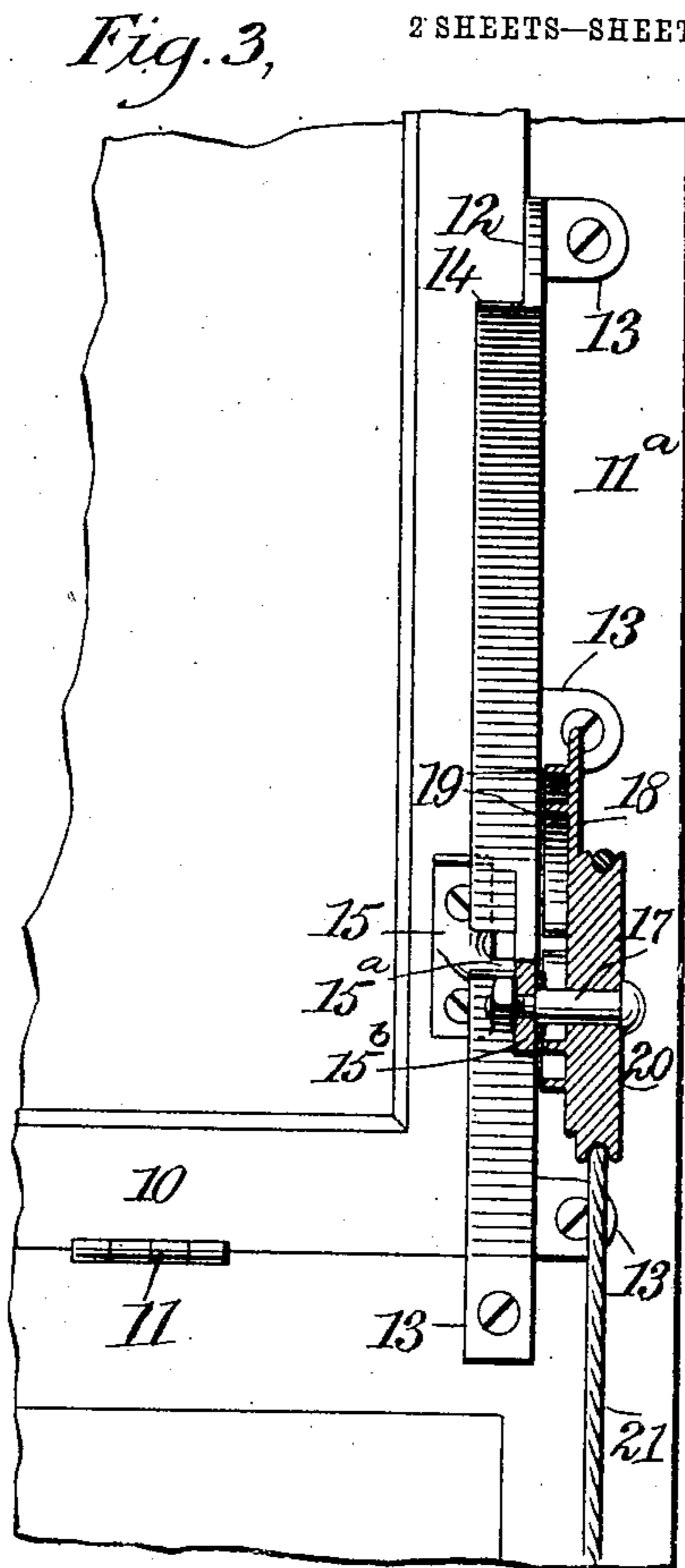
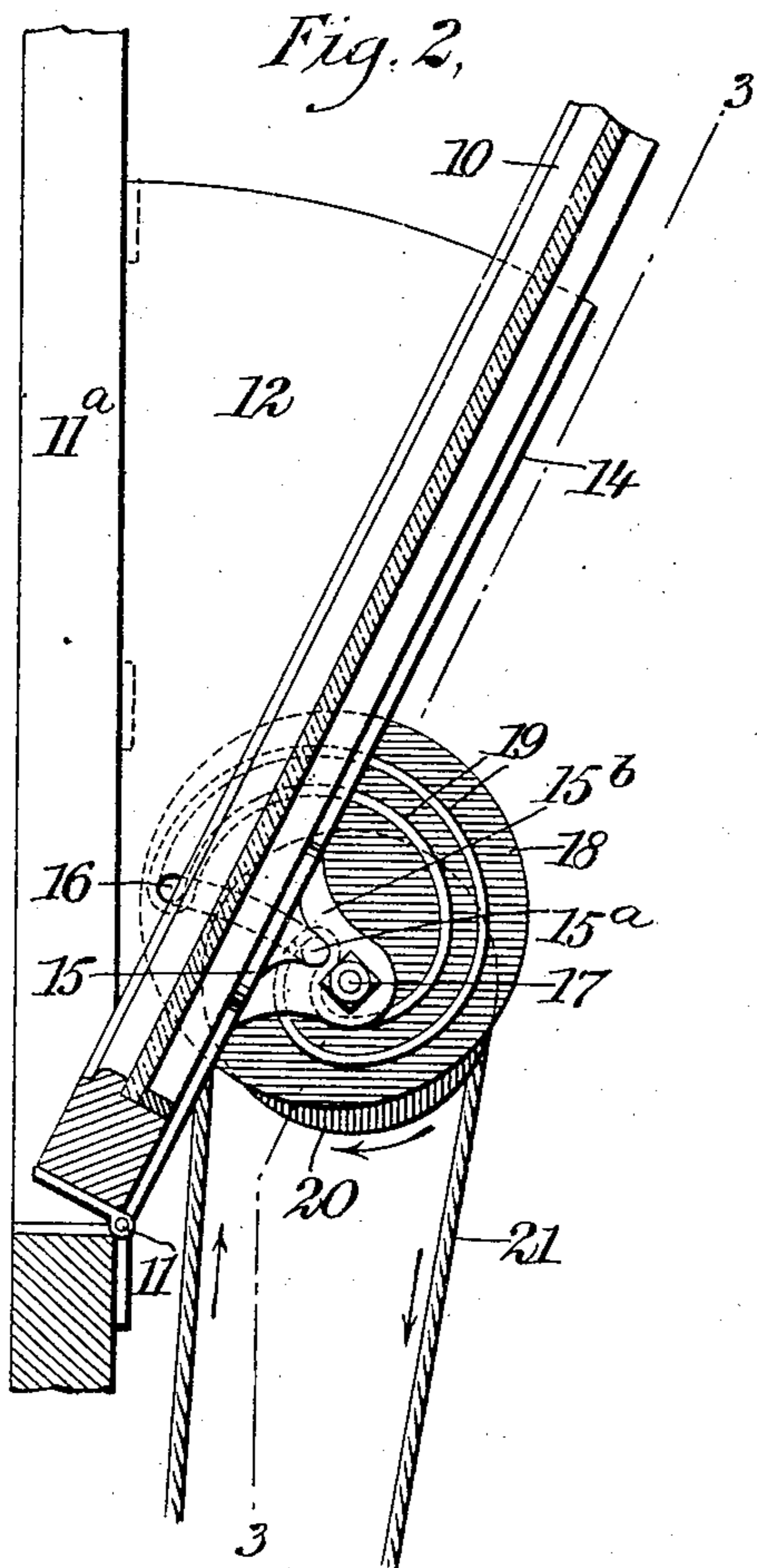
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

WILLIAM ECKSTEIN, OF LONDON, ENGLAND.

TRANSOM-OPERATOR.

SPECIFICATION forming part of Letters Patent No. 786,106, dated March 28, 1905.

Application filed October 14, 1904. Serial No. 228,423.

To all whom it may concern:

Be it known that I, WILLIAM ECKSTEIN, a subject of the King of Great Britain, and a resident of London, England, have invented a new and Improved Transom-Operator, of which the following is a full, clear, and exact description.

My invention relates to mechanism for operating such closures as transoms, and has for its principal objects the provision of a simple apparatus for this purpose which will be smooth and noiseless in action.

It consists in the various features and combinations hereinafter described and claimed. Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a transom with one embodiment of my invention applied thereto. Fig. 2 is a vertical section through said transom, it being shown in its open position. Fig. 3 is a transverse section on the line 3-3 of Fig. 2. Fig. 4 shows in elevation the face of another form of grooved member, and Fig. 5 illustrates another arrangement of operating member.

10 designates a transom, which is pivotally supported at its lower edge by hinges 11 in the frame or casing 11^a. Upon this frame at one side of the transom is fixed a bracket 12, from which extend angular lugs 13, perforated to receive screws for attaching it. This bracket may be of sector shape, tapering toward the lower edge of the transom, and may be provided along its outer side with a stop or flange 14, serving to limit the opening movement of the transom, the height of the bracket being sufficient to enable it to furnish a firm support. Fastened to the edge of the transom adjacent to the bracket, conveniently by means of a plate 15, is a pin or projection 15^a, having an angular outer extremity which extends through a slot 16 in the wall of the bracket, this slot being preferably curved upon the arc of a circle, having the hinge-axis of the transom as its center.

From an arm 15^b, conveniently integral with the bracket 12, projects a bearing-stud 17 at the opposite side from the transom. Rotata-

ble upon and preferably eccentric to this stud is a member (shown in the form of a disk 18) having a spiral path or cam-groove formed between walls or flanges 19. Secured to or formed integrally with the disk at its outer side is a wheel or pulley 20, having its periphery concentric to the stud and provided with a groove to receive a flexible operating member, such as a cord 21. This operating member may be continuous and may be held taut and retained against swinging by a sheave 22, over which it passes, this sheave being connected by a spring 23 to a hook or fastening device 24, fixed to the frame in such position that the cord may be readily reached by the person operating it.

Upon rotating the member 18 in the direction of the arrow in Fig. 1 through the pulley and associated cord the outer wall of the cam-groove will be forced against the pin upon the transom, gradually moving this inwardly until at the end of the groove said transom will have been closed, this being accomplished smoothly and without the jar or vibration which is liable to be present in apparatus operated by gears, racks, or the like. To open the transom, it is only necessary to rotate the pulley in the opposite direction, whereupon the inner wall of the groove will act against the pin and move it outwardly.

The form of groove illustrated in Fig. 2 of the drawings accomplishes the movement with comparative quickness. If desired, the resistance may be reduced by decreasing the pitch of the groove, as is shown at 25 in Fig. 4. If the operating member displays any tendency to slip upon the pulley, this may be overcome by substituting for the cord a chain 26, coacting with a toothed wheel 27.

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

1. The combination with a pivotally-mounted closure having a projection, of a member situated adjacent thereto and rotatable about a relatively fixed axis, said member being provided with a spiral groove into which the projection extends.

2. The combination with a pivotally-mounted closure having a projection, of a rotatable disk situated adjacent thereto and being pro-

vided at one side with a spiral groove into which the projection extends.

3. The combination with a pivotally-mounted closure having a projection, of a member
5 situated adjacent thereto and rotatable about a relatively fixed axis, said member being provided with a spiral groove into which the projection extends, and a wheel attached to the rotatable member.

10 4. The combination with a pivotally-mounted closure provided with a projection, of a member rotatable about an eccentric axis and having a spiral groove into which the projection extends, and a wheel fixed to the member
15 concentric with the axis.

5. The combination with a closure having a projection, of a bracket mounted adjacent to the closure, and a member rotatable upon the bracket and having a groove into which the
20 projection extends.

6. The combination with a closure having a

projection, of a bracket mounted adjacent to the closure and having a curved slot through which the projection extends, and a member rotatable upon the bracket at the opposite
25 side from the closure and being provided with a groove to receive the projection.

7. The combination with a closure having a projection, of a bracket mounted adjacent to the closure and being provided with a stop
30 portion with which the closure may contact, and a member rotatable upon the bracket and having a groove into which the projection extends.

In testimony whereof I have signed my name
35 to this specification in the presence of two subscribing witnesses.

WILLIAM ECKSTEIN.

Witnesses:

JNO. M. RITTER,
SYLVANUS H. COBB.