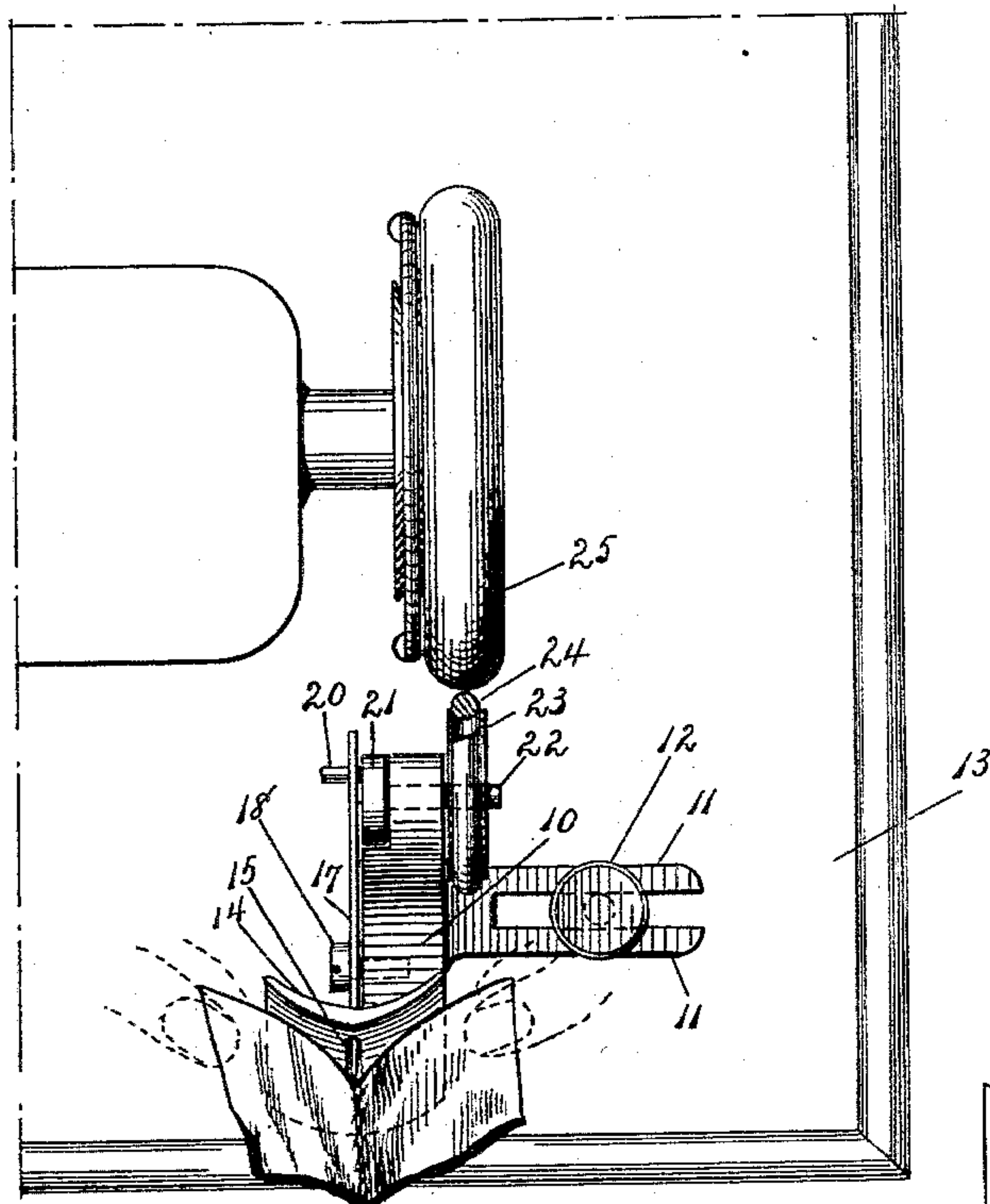


(No Model.)

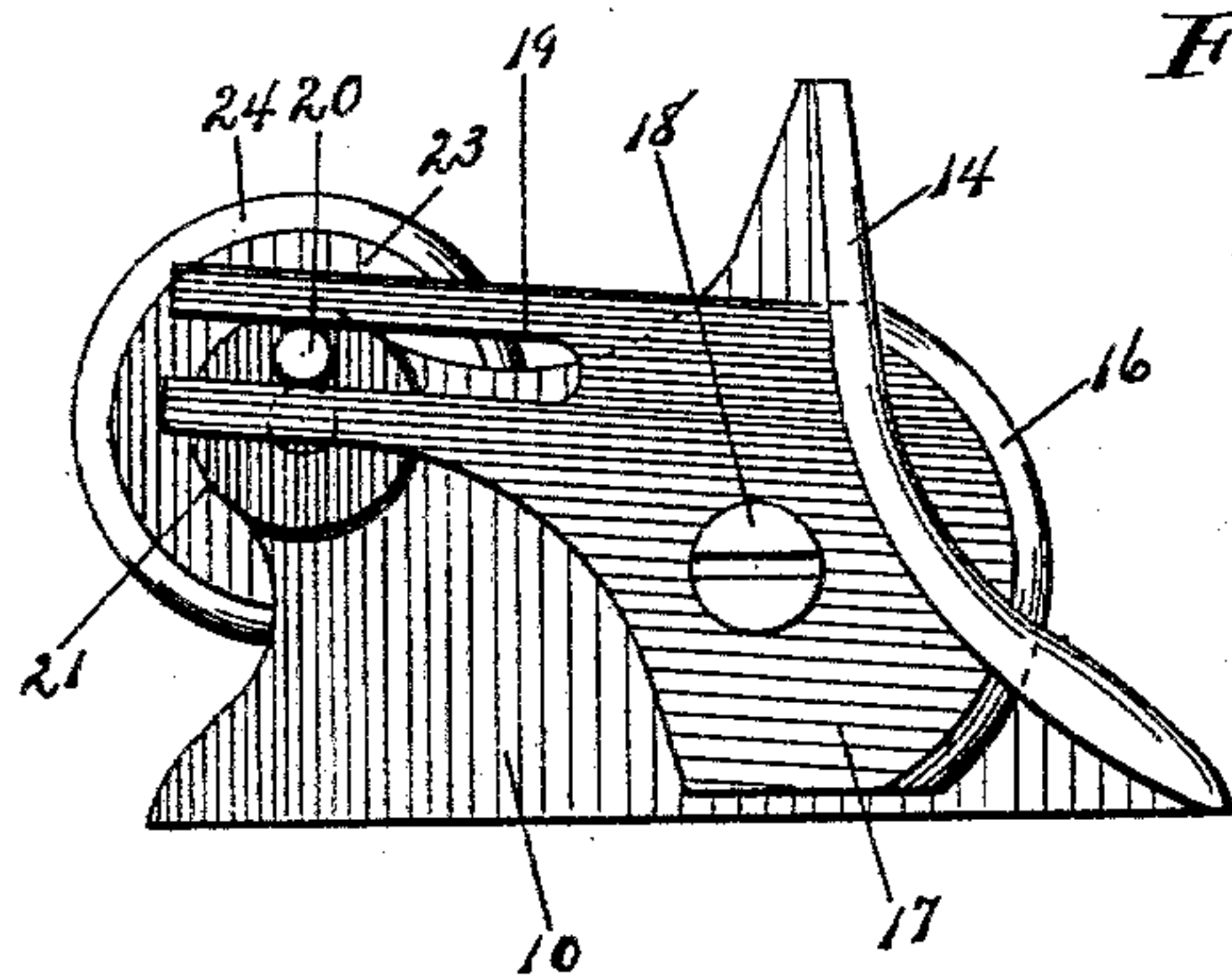
F. A. REYNOLDS.  
RIPPING DEVICE.

No. 596,789.

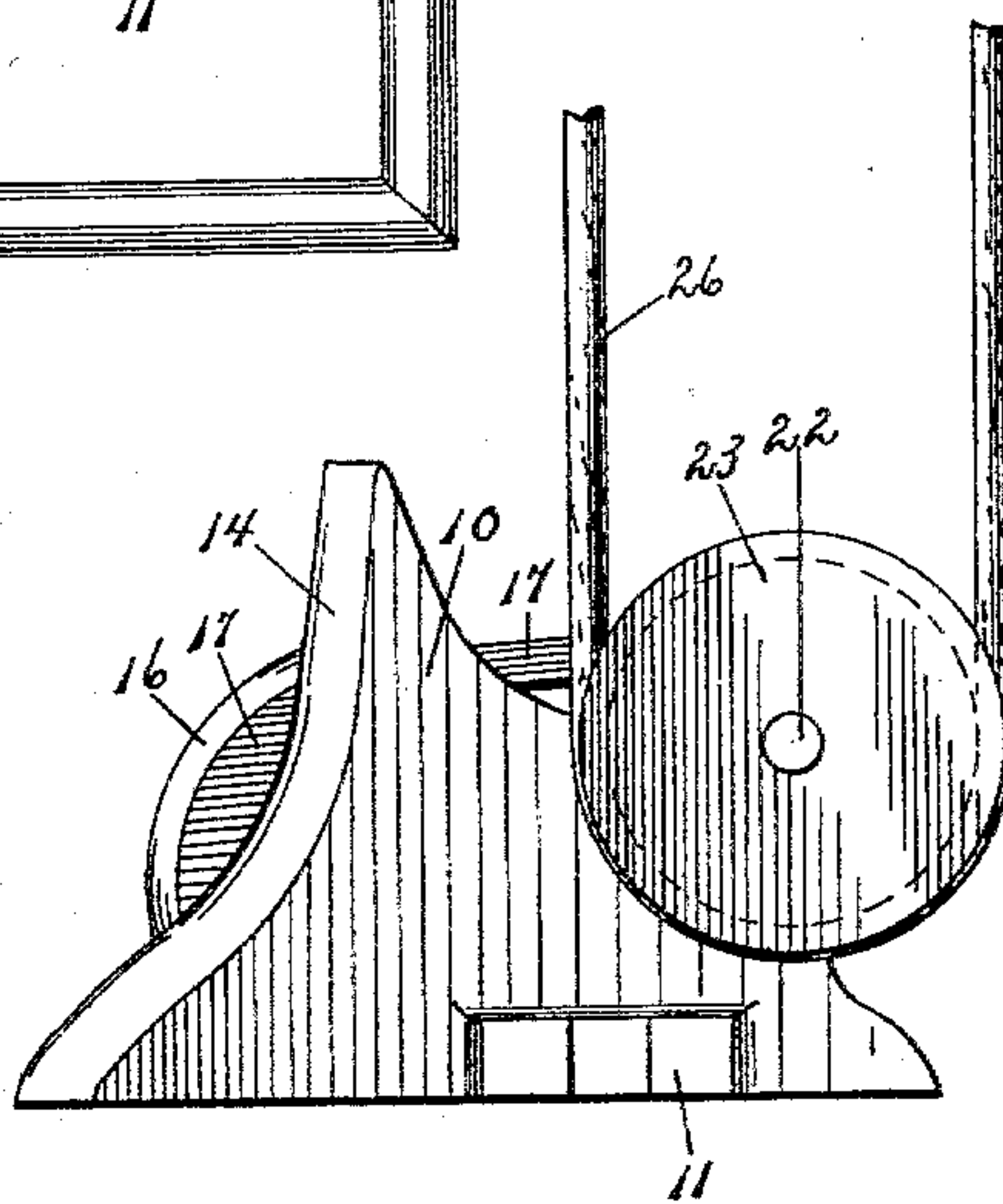
Patented Jan. 4, 1898.



*Fig. 1.*



*Fig. 2*



*Fig. 3*

WITNESSES:

John A. Bergstrom  
John J. Whittle

INVENTOR

Frank A. Reynolds  
BY  
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# UNITED STATES PATENT OFFICE.

FRANK A. REYNOLDS, OF LEWISTON, MAINE, ASSIGNOR OF ONE-HALF TO  
STEPHEN H. MANNING, OF SAME PLACE, AND HERSCHEL C. PARKER,  
OF BROOKLYN, NEW YORK.

## RIPPING DEVICE.

SPECIFICATION forming part of Letters Patent No. 596,789, dated January 4, 1898.

Application filed April 21, 1897. Serial No. 633,128. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK A. REYNOLDS, of Lewiston, in the county of Androscoggin and State of Maine, have invented certain new and useful Improvements in Ripping Devices, of which the following is a full, clear, and exact description.

My invention relates to improvements in that class of devices which are used for ripping seams or cutting material; and the object of my invention is to produce a very simple, cheap, and practical device which can be used to advantage as an attachment to an ordinary sewing-machine or which, if desired, can be used independently, which will fit any sewing-machine, so as to be run conveniently from the fly-wheel, which can be attached while the machine is in motion, so as to make it adaptable for shop purposes where the sewing-machine is run by power, which can be quickly and securely clamped to the machine or other support, and which when in operation works very rapidly and with no danger of injuring the operator or the material being operated on.

To these ends my invention consists of a ripping device, the construction and arrangement of which will be hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the device as applied to an ordinary sewing-machine, a portion of the driving-band being broken away. Fig. 2 is a side elevation of the device, showing the means for operating the knife; and Fig. 3 is a side elevation taken from the opposite side to that illustrated in Fig. 2.

The device has a suitable frame or base 10, which is adapted to sit upright on any convenient support, being particularly adapted for attachment to a sewing-machine table or bed, and this frame 10 can be of any approved shape or construction and, as illustrated, has a laterally-extending slotted arm 11, which is adapted to receive a clamping-screw 12 and by the screw be fastened securely to the table

13 of a sewing-machine or to any other suitable support.

The front of the frame 10 merges in a shield or guard 14, which is preferably concaved slightly from top to bottom, so as to provide for the knife to be presently referred to, and which is convex in cross-section, as shown in Fig. 1, so that the material can be readily applied to the knife and parted conveniently in order that the knife may work to the best possible advantage.

The guard 14 has a vertical slot 15, through which projects the edge 16 of the oscillating knife 17, and the slotted guard 14 thus serves as a guide for the knife, so that the latter moves regularly in a vertical plane and cannot be readily displaced, while the knife by being arranged so as to project slightly through the guard, as shown in the drawings, is enabled to cut the material to advantage, but without danger of injuring either the material or the fingers of the operator.

The knife can be moved in several ways without affecting the principle of the invention; but I find that it cuts best with an oscillating motion, and to this end the knife is pivoted on a screw 18 or equivalent fulcrum, which is fastened to the frame 10, and the knife has a projecting rear end with a longitudinal slot 19 therein, which receives and is actuated by the crank 20 on the disk 21, this disk being carried by the shaft 22, which is journaled on the frame 10 and driven by a pulley 23. Obviously the crank 20 may form a part of the shaft 22, and it will be understood that the knife may also be driven in any other well-known manner without departing from the principle of the invention.

The pulley 23 is preferably a grooved pulley having a friction-band 24, preferably of rubber, thereon, and by bringing this band into frictional contact with a fly-wheel 25 of a sewing-machine the pulley 23 and crank-shaft 22 are rapidly driven, and the crank 20, acting on the knife 17, rapidly oscillates the latter on its pivot 18, so that the edge 16 cuts rapidly into the material which is brought against it. Instead of using the band 24 a belt 26 can be applied to the pulley 23, as



shown in Fig. 3, and the operation is exactly as already described.

From the foregoing description it will be seen that the device can be very easily applied to  
5 any ordinary sewing-machine, or that it can be used independently, if preferred, and that in either case the knife can be made to cut rapidly and with little danger to either operator or material.

10 The construction of the frame or support 10 can be departed from, but the form shown is particularly appropriate and very cheap and substantial. I therefore make this frame the  
15 subject of a claim, but do not limit the invention to any particular form of frame or support.

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

20 1. A ripping device, comprising a frame having an upright web and a vertically-slotted laterally-spreading guard at its forward edge, a knife pivoted to the web so as to oscillate thereon and having its cutting edge project-  
25 ing through the slot of the guard, and means for imparting motion to the knife, substantially as described.

2. A device of the kind described, compris-

ing a supporting-frame having a vertical web provided with a curved or beveled forward 30 edge, and a wing or extension on one side thereof forming a continuation of the beveled forward edge of the web and extending in an opposite direction thereto so as to provide a  
35 guard to spread the material to be cut and to protect the operator, said guard being vertically slotted at the junction of the wing and web, a knife having its cutting edge projecting through the slot in the guard and means  
40 for operating the knife, substantially as described.

3. A device of the kind described, comprising a frame or support having at one edge a  
45 slotted guard, an oscillating knife fulcrumed on the support and having its edge projecting through the guard, the knife having a slotted rear end, a crank-shaft journaled on the support and having its crank extending  
50 into the slot of the knife and means for rotating the crank-shaft, substantially as described.

FRANK A. REYNOLDS.

Witnesses:

LOUIS O. REINTORD,  
FANNIE V. SAUNDERS.