

No. 812,153.

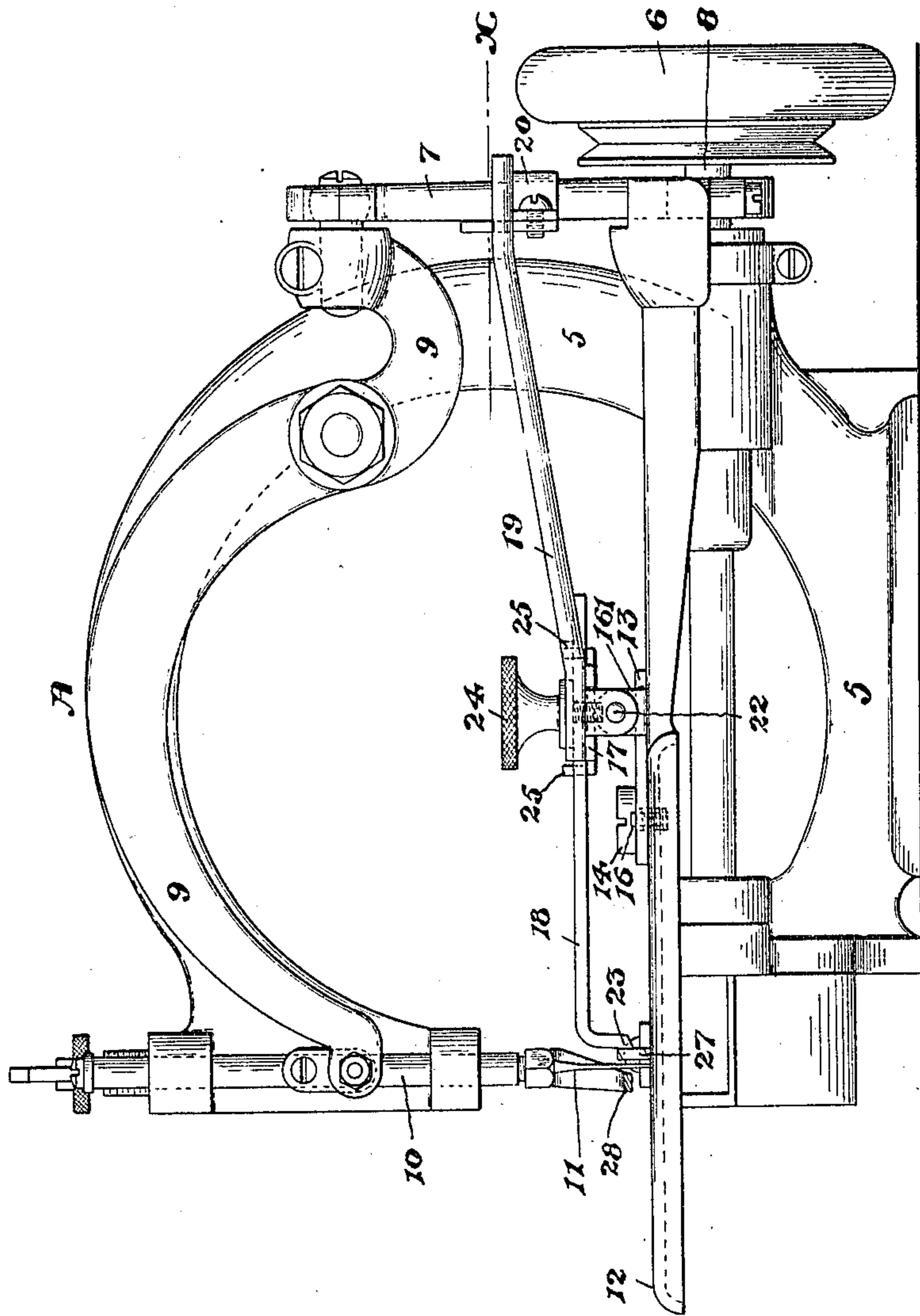
PATENTED FEB. 6, 1906.

W. E. RINK.

TRIMMING ATTACHMENT FOR SEWING MACHINES.

APPLICATION FILED JAN. 3, 1905.

3 SHEETS—SHEET 1.



WITNESSES:

Ralph Lancaster
Russell M. Everett

INVENTOR:
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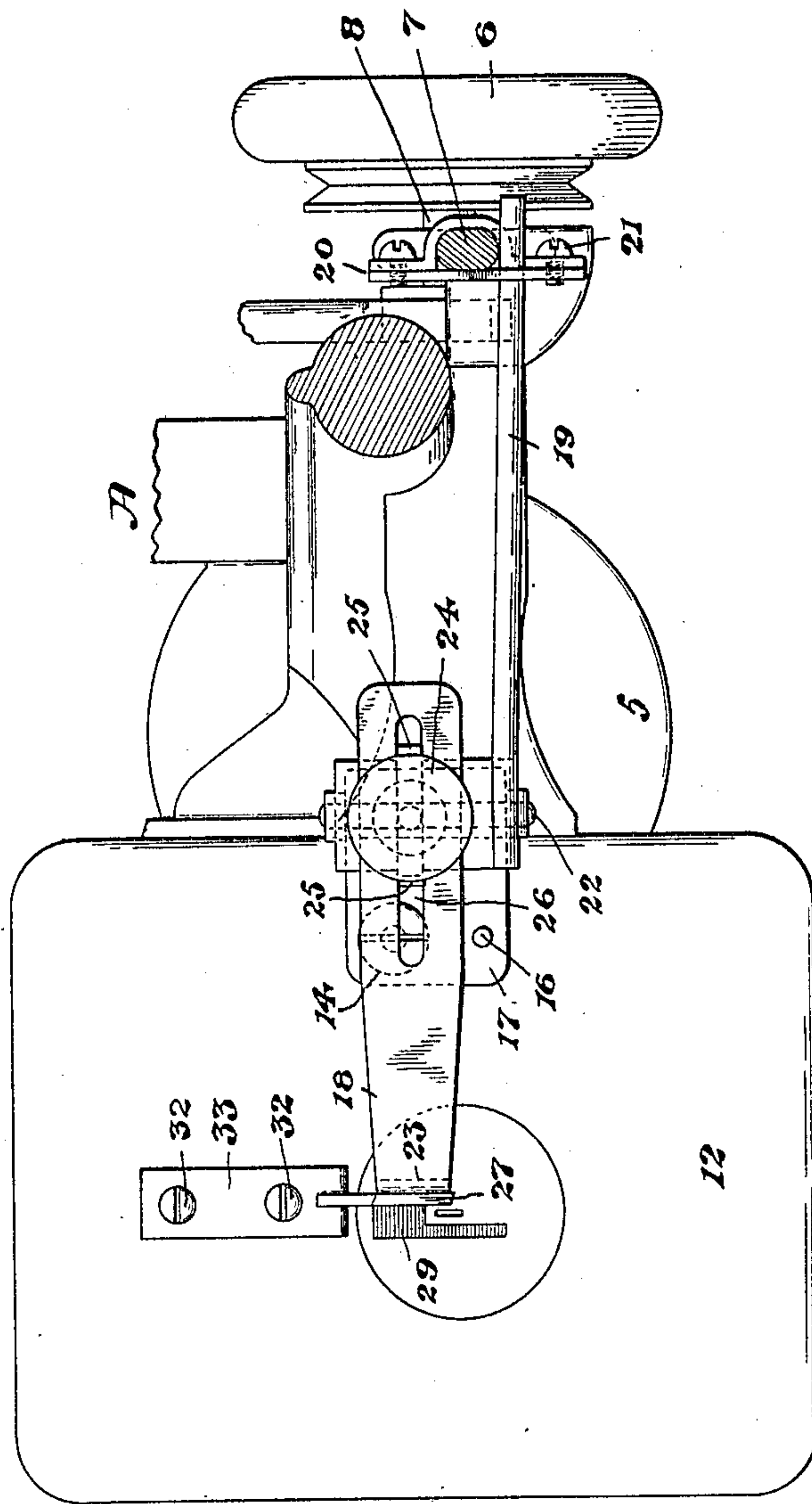


Fig. 2.

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Ralph Lancaster

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Charles H. Bell, BY ATTORNEY.

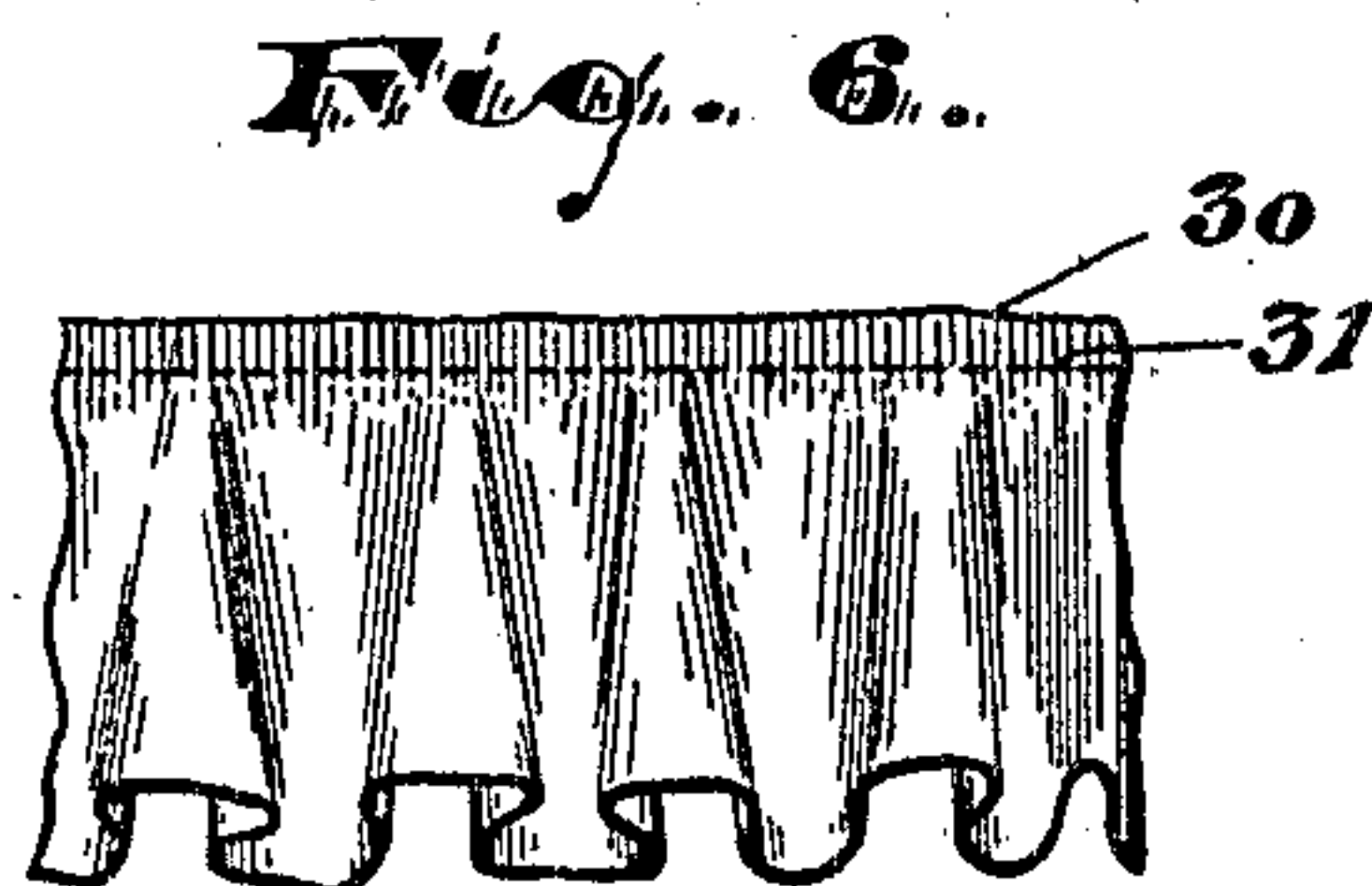
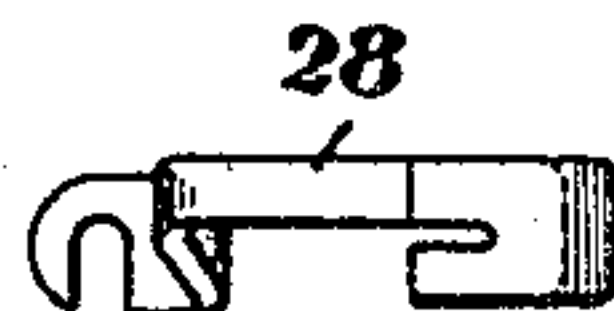
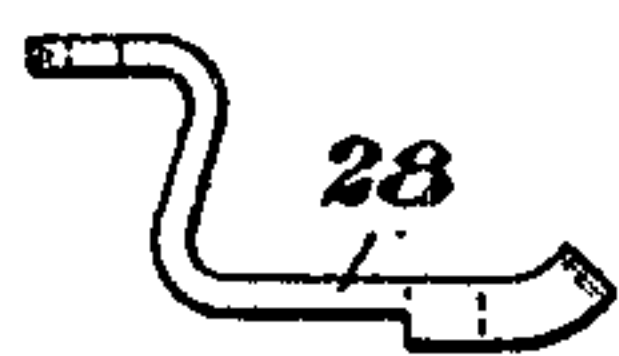
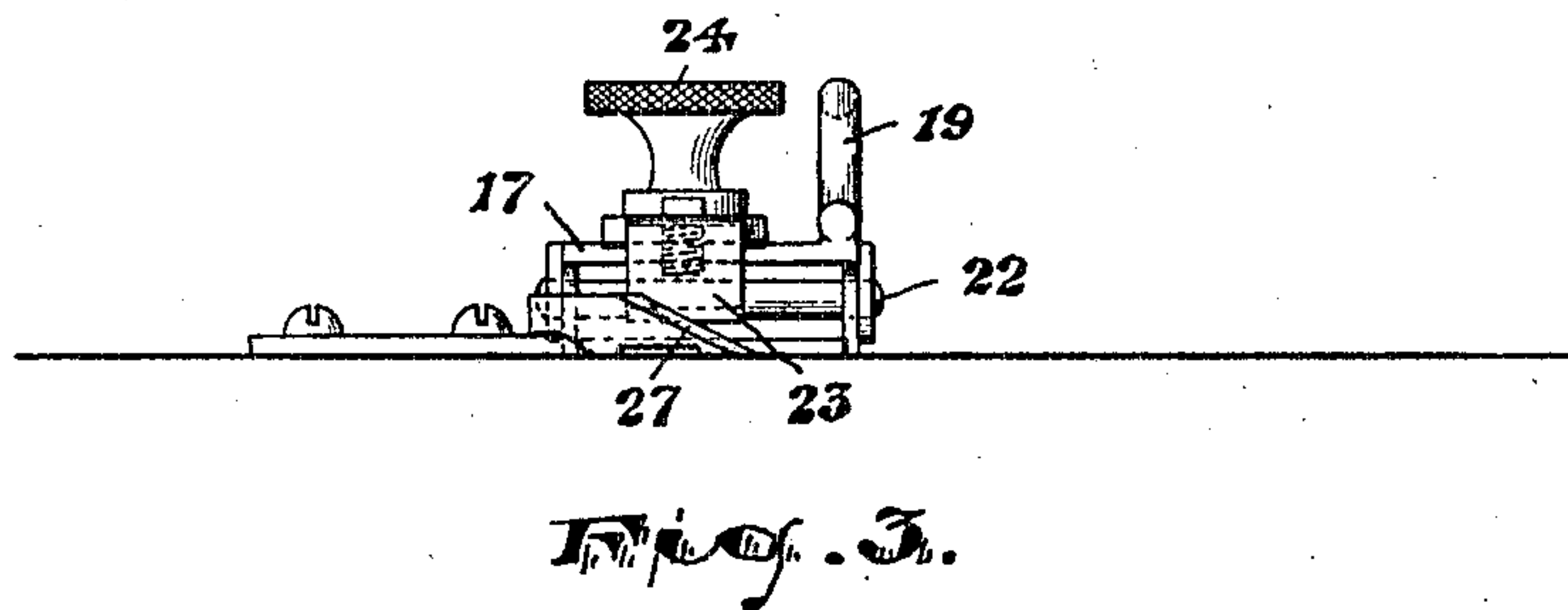
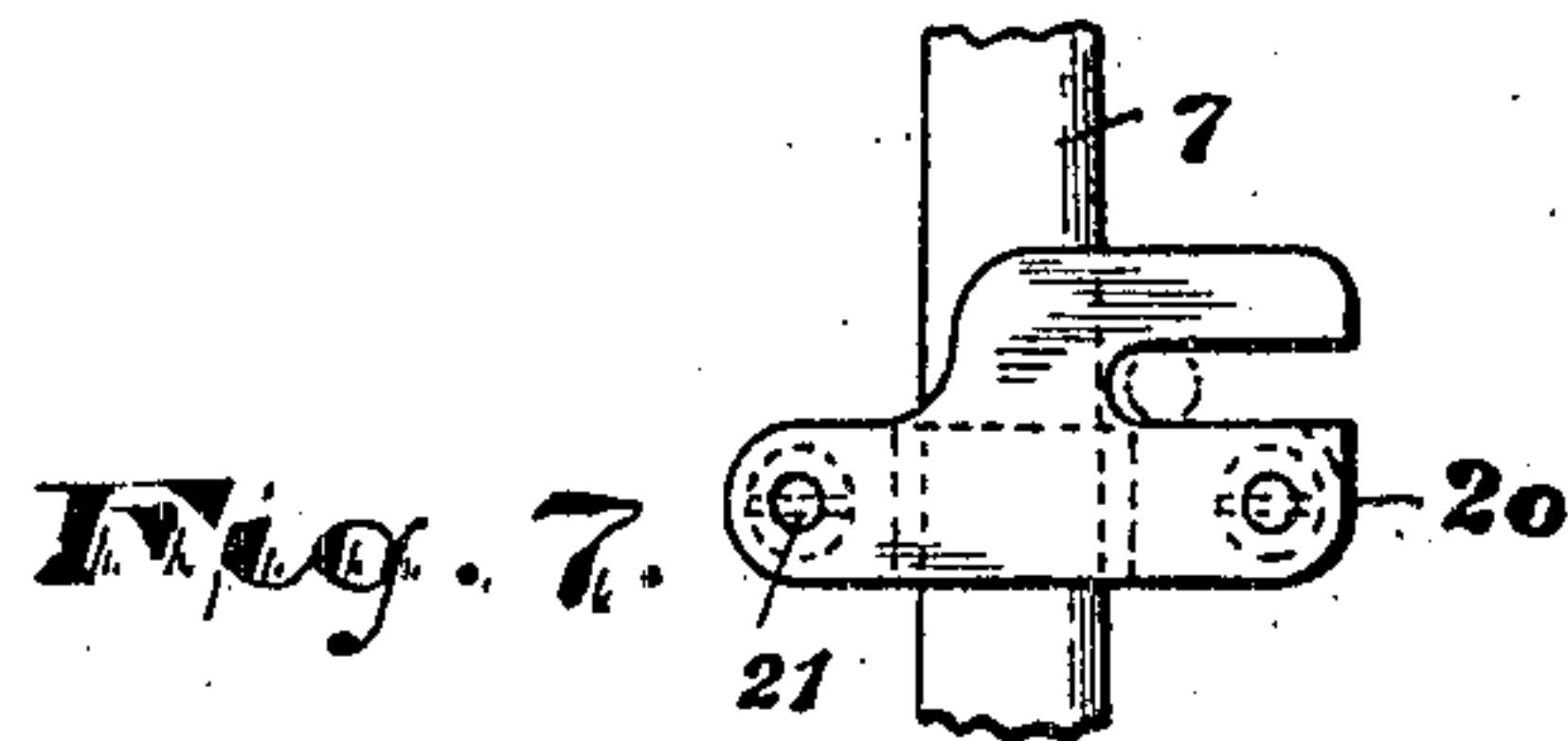
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William E. Rink,

BY

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UNITED STATES PATENT OFFICE.

WILLIAM E. RINK, OF MAPLEWOOD, NEW JERSEY, ASSIGNOR OF ONE-HALF TO FRANK BURKE, OF NEWARK, NEW JERSEY.

TRIMMING ATTACHMENT FOR SEWING-MACHINES.

No. 812,153.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed January 3, 1905. Serial No. 239,456.

To all whom it may concern:

Be it known that I, WILLIAM E. RINK, a citizen of the United States, residing at Maplewood, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Trimming Attachments for Sewing-Machines; and I do hereby 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, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

The objects of this invention are to enable two operations—to wit, stitching and edge trimming or shearing—to be performed simultaneously and together by the one machine; to enable said functions to be performed with neatness and speed, more particularly in connection with making trimming for ladies' and children's underwear, &c.; to provide a simple construction and one capable of performing the said service which will be durable and strong; to enable the improvements to be attached to and detached from sewing-machines of ordinary construction, and to obtain other advantages and results, some of which may be referred to hereinafter in connection with the description of the working parts.

The invention consists in the improved sewing or stitching and edge shearing or trimming machine and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like characters of reference indicate corresponding parts in each of the several figures, Figure 1 is a front elevation of my improved machine. Fig. 2 is a horizontal plan of the lower part of the same, a section being taken at line *x* of Fig. 1. Fig. 3 is a detail side view showing the trimming-blades more clearly. Figs. 4 and 5 are respectively a side view and plan of a presser-foot applicable to my improvements when I desire to shear the edges of a ruffle simultaneously with the forming of said ruffle in connection with the stitching of the same, and Fig. 6 is a view of a ruffle which has been sewed and finally trimmed or sheared. Fig. 7 is a detail side

view of a certain bracket clamped to the connecting-rod of the machine.

In said drawings, A indicates a sewing-machine of any ordinary construction having a bed-plate or frame 5 and driving-wheel 6 and connecting-rod 7, arranged to stand vertically, or approximately so, in transmitting power from the shaft 8, carrying said driving-wheel 6 or the usual eccentric thereon (not clearly shown) to the needle-operating lever 9 and the usual needle-bar 10 and needle 11. The connecting-rod 7 because of the eccentric rotating with the shaft 8 has an up-and-down reciprocating movement, as usual, and this movement is taken advantage of in operating the parts to which my improvements more particularly relate. At a point about midway between the connecting-rod 7 and the needle 11 I arrange on the cloth-plate 12 or other portion of the frame 5 of the machine a fulcrum-plate 13, which is separately fixed on said plate 12 in any suitable manner, a screw 14 being preferably employed for fixing the said fulcrum-plate in position, a single screw in connection with a dowel-pin 16 being sufficient to give rigidity and security to said fulcrum-plate upon the frame. The said fulcrum-plate supports the fulcrum-pin 22. At opposite sides of said fulcrum-plate 13 are ears 161, upon which is pivoted a rocking plate 17, which provides a bearing for a shearing-knife 18 and supports a lever-arm 19, which extends from said rocking plate 17 to a bracket 20, separably and adjustably fastened to the connecting-rod 7. The said bracket 20 is slotted horizontally, as shown in Fig. 7, to permit the lever-arm 19 to move independent of said bracket or the bracket to move independent of the arm to prevent any interference of the movement of the machine. Said bracket is clamped upon the said connecting-rod, said bracket being preferably in sections fixed on said rods by screws 21.

By means of the slotted bracket 20 and its connections with the lever-arm 19 the rocking plate is caused to oscillate on its fulcrum-pin 22 and transmit the oscillatory movements to the shearing-blade 23 of the knife above referred to. Said shearing-knife 18 is adjustably seated on the rocking plate 17, being held thereon by a set-screw 24, a pair of lugs 25, formed on the rocking plate, extending upward from the shearing-knife seat and entering a longitudinal slot 26 in the shearing-

knife and preventing any lateral movements of the said shearing-knife.

At the end of the cutting-knife the same is turned downward toward the cloth-plate, and its lower edge is sharpened to form the cutting-blade 23, before referred to, which coöperates with a second cutting-blade 27, fastened upon the cloth-plate at a point more or less close to the presser-foot 28. The said coöperating cutter 27 is movable on its bearings toward or from the presser-foot 28 or feed 29, agreeable to whether the trimmed edge 30, Fig. 6, is to lie close to or far from the line of stitching 31.

The coöperating cutting-blade 27 is preferably fixed to the cloth-plate 12 by means of screws 32, the blade being provided with a horizontal part 33, adapted to lie flat on said cloth-plate. The two said shearing-blades act together after the manner of the ordinary shears or scissors in shearing or trimming as the fabric is undergoing the sewing operation.

In operating the device the machine is operated by any usual means to rotate the driving-wheel 6 and effect a vertical reciprocating motion of the connecting-rod 7. This movement is communicated to the lever-arm 19, and the rocking plate is caused to oscillate on its fulcrum-pin 22 to effect a corresponding oscillation of the knife 18. The cutting edge of one blade being disposed at an angle to that of the other, as indicated in Fig. 3, the reciprocating movement of the blade 23 against the side of the stationary blade 27 effects a cutting movement as the fabric is fed in the sewing operation.

Having thus described the invention, what I claim as new is—

1. In a sewing-machine, the combination with the cloth-plate, needle and needle-operating means, of a fulcrum-plate removably seated on said cloth-plate, a fulcrum-pin supported by said fulcrum-plate, a rocking plate arranged on said pin, a slotted shearing-knife extending from said rocking plate to a coöperating knife near said needle, a set-screw arranged in the slot of said knife, a lever-arm also supported by said fulcrum-plate and extending to a slotted bracket, and said slotted bracket attached to a part of the needle-operating means, and said coöperating shearing-knife, substantially as set forth.

2. In a sewing-machine, the combination with the cloth-plate, needle and needle-operating means, of a fulcrum-plate separably attached to the cloth-plate, a rocking plate pivoted on said fulcrum-plate, a slotted shearing-knife adjustably fastened on said rocking plate and turned downward at its free end and sharpened to form a cutting edge, a coöperating cutting-blade fixed upon the cloth-plate, a lever-arm also attached to the rocking plate and extending therefrom to a bracket separably clamped to a part of the needle-operating means, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 13th day of December, 1904.

WILLIAM E. RINK.

Witnesses:

CHARLES H. PELL,
RUSSELL M. EVERETT.