

No. 794,875.

PATENTED JULY 18, 1905.

R. H. MOORE.
FILLED SACK SEWING MACHINE.

APPLICATION FILED NOV. 10, 1904.

2 SHEETS—SHEET 1.

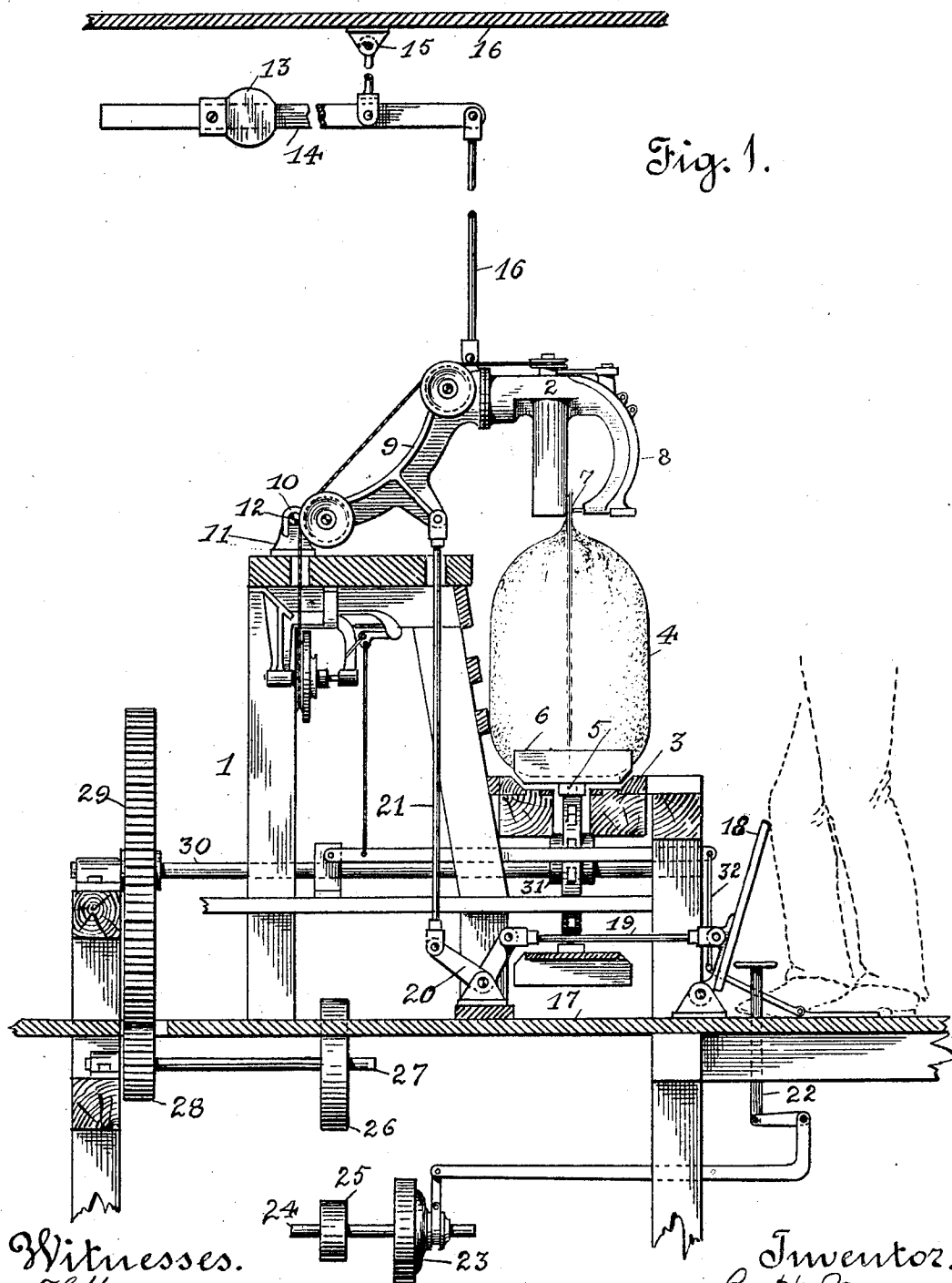


Fig. 1.

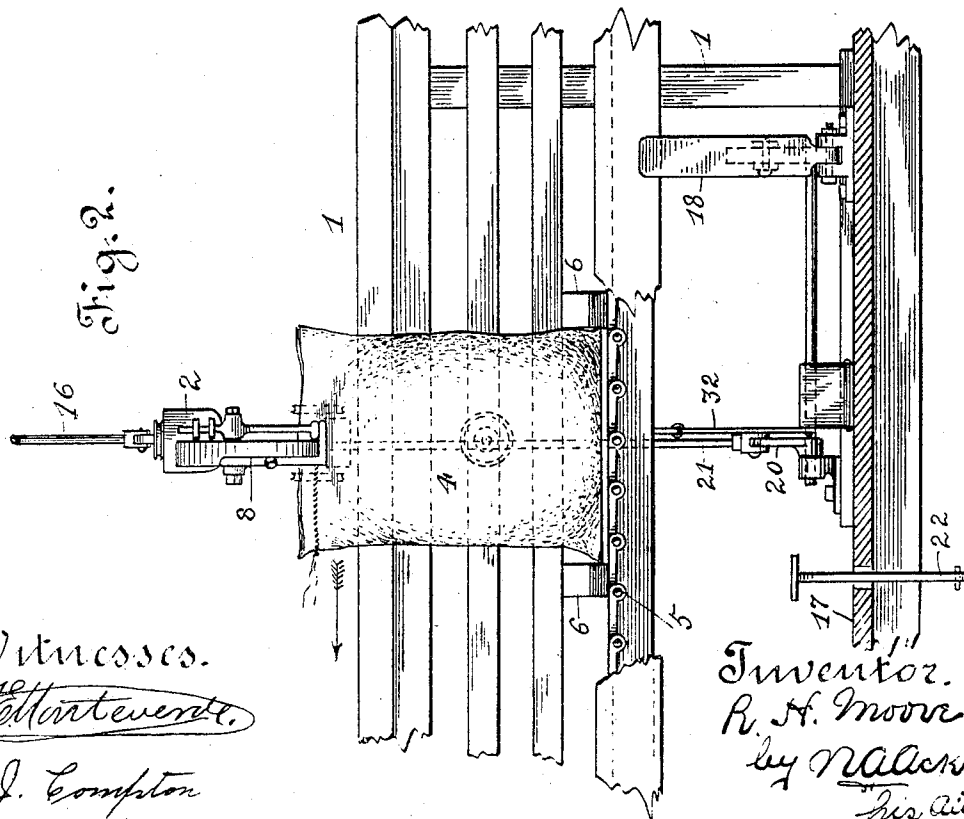
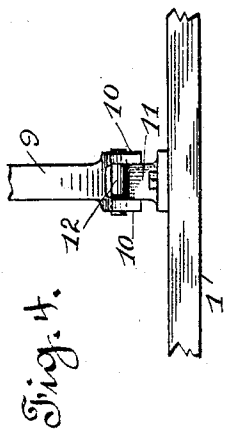
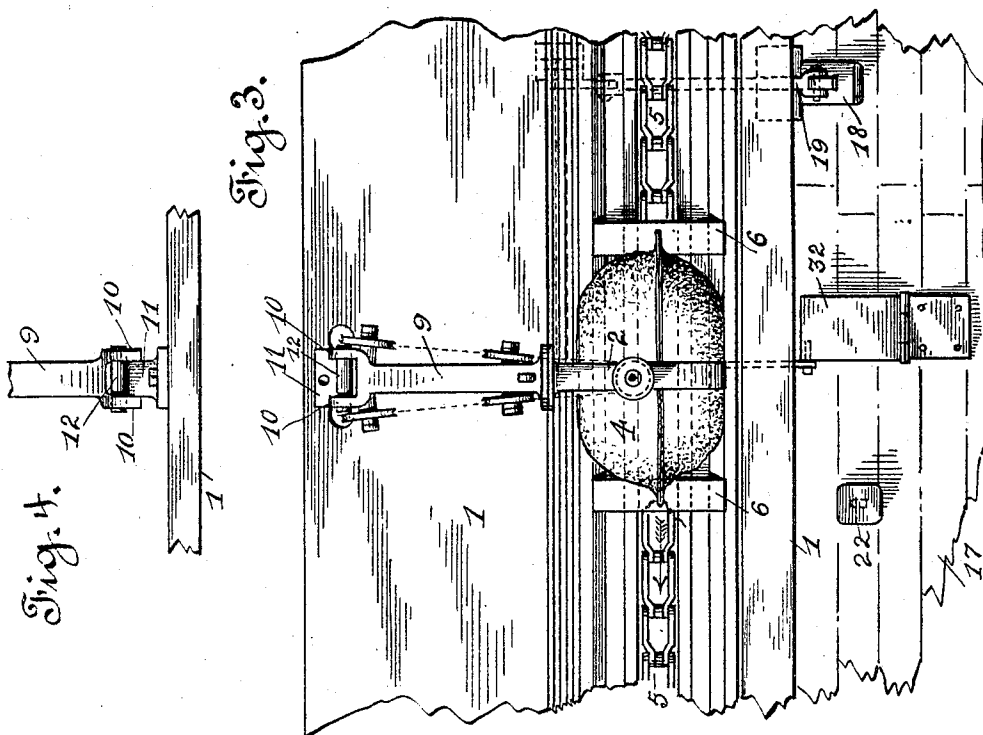
Witnesses.
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J. Compton

Inventor.
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

RALPH H. MOORE, OF SAN FRANCISCO, CALIFORNIA.

FILLED-SACK-SEWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 794,875, dated July 18, 1905.

Application filed November 10, 1904. Serial No. 232,086.

To all whom it may concern:

Be it known that I, RALPH H. MOORE, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Filled-Sack-Sewing Machines; and I do hereby declare the following to be a full, clear, and exact description of the same.

The feature of the present invention relates to means under the control of the operator of the machine whereby the head carrying the stitching mechanism may be raised or lowered during the travel of the filled sacks in order to adjust the position of the stitching mechanism to conform to sacks of varying heights, thereby enabling the machine to successfully act for sewing the mouths of filled sacks which differ as to height without necessitating the stoppage in the working mechanism in order to readjust the working parts for the purpose of positioning the stitching mechanism for such variation in the height of the filled sacks to be sewed. This adjustment is accomplished by so counterbalancing the weight of the stitching or sewing mechanism as to permit of the same being raised and lowered vertically by the exercise of but slight pressure and connecting the same to a lever under the control of the operator of the machine, which lever as moved or thrown inward will, through its interconnecting parts, cause the lowering of the swinging head carrying the stitching mechanism, so as to place its needle in line with the mouth of the filled sack, the weight of the counterbalancing means being sufficient to restore the sewing mechanism to its normal position the moment the operating-lever is released.

To comprehend the invention, reference should be had to the accompanying sheets of drawings, wherein—

Figure 1 is a cross-sectional end view in elevation, taken through the conveyer for the filled sack, said view disclosing the sewing mechanism and a filled sack on the endless conveyer positioned with its opened mouth within the sewing mechanism, also illustrating the counterbalancing means for the hinged head of the sewing mechanism and the con-

nected means for lowering the hinged or swinging head of the sewing mechanism. Fig. 2 is a front view in elevation of the mechanism set forth in Fig. 1 of the drawings. Fig. 3 is a top plan view of said mechanism; and Fig. 4 is a broken rear detail view in elevation, illustrating the hinged joint for the arm of the sewing-head.

The numeral 1 is used to designate any suitable supporting-frame for the head 2 of the sewing or stitching mechanism, which head overhangs the said frame, so as to be in line with the runway 3 for the filled sacks 4. Within this runway 3 works the endless-chain conveyer 5, which at given intervals is provided with the cross-pieces 6, between which cross-pieces or in the seats formed thereby rest the filled sacks 4 to be sewed. These sacks are delivered to the endless conveyer with the open mouth parallel to the runway or trough 3 and at right angles to the line of movement of the sewing-needle 7. This needle is held within the curved arm 8, downwardly extending from the sewing or stitching head 2. It may here be stated that the sewing mechanism is the same as that ordinarily employed in machines for this class of work and that the said mechanism forms no portion of the invention, excepting as relates to the manner of suspending the same to quickly and readily adjust the vertical position thereof relative to the height of the filled bags or sacks to be sewed.

The head 2 is connected to a rearwardly-extending arm 9, which arm at its lower end is provided with the ears 10, which straddle the block 11, attached to the upper face of the supporting-frame 1, and said arm is hinged thereto by means of the bolt 12, which passes through the ears 10 and the block 11, Figs. 3 and 4 of the drawings. Being thus connected to the supporting-frame the head 2 is free to swing vertically in order to move toward and from the runway 3.

The weight of the head 2 is compensated for by means of the counterbalancing-weight 13, adjustably secured upon the fulcrumed lever or rod 14. This rod or lever 14 is fulcrumed to a bracket or support 15, depending from the ceiling or other support 16, and the outer

end of said lever or rod 14 is connected to the head 2 by means of the link-rod 16. By this means the head 2 is held raised to its full adjusted or normal position, which is obtained by shifting the weight 13 at the commencement of the operation of sewing the filled bags or sacks.

The initial adjustment given to the head 2 is such as to place the sewing-needle in line with the mouth or open end of the bags or sacks to be sewed. However, it frequently happens that the filled sacks or bags are not uniform as to height, which is the occasion of much annoyance to the operator of the machine, as it is required to stop the work of sewing until such an adjustment is made as will place the open end of the filled sack in line with the sewing-needle. To avoid such delay in the work of the machine and to permit of the operator quickly adjusting the position of the head carrying the stitching mechanism to place the needle thereof in line with the approaching sack to be sewed, there is hinged to the floor 17 within convenient reach of the operator's knee a lever 18, which, through the medium of a connecting-rod 19, is connected to one arm of a bell-crank 20, the opposite arm of which bell-crank is connected to the head 2 by means of the rod 21. Being thus connected it is apparent that as the lever 18 is forced inward by the operator or toward the frame 1 the inner arm of the bell-crank 20 is thrown downward, which, through the connecting-rod 21, draws the head 2 downward until the sewing-needle thereof is in line with the open end of the bag or sack to be closed. The lowering of the head 2 to adjust the same relative to the height of the sack or bag approaching the sewing or stitching mechanism to be sewed is thus under the absolute control of the operator. The moment the operator releases the pressure from the lever 18 the weight 13 at once restores the same to its normal position. By the described adjusting means the operator may absolutely control the position of the sewing or stitching mechanism, so far as relates to vertical adjustment, in order to adapt the same to filled sacks or bags of varying height as they are fed or conveyed toward the sewing or stitching mechanism.

The starting or stopping of the endless conveyer 5 is controlled by the lever 22, which lever actuates a friction-clutch 23 in order to throw the same into and out of frictional engagement with a driven power-shaft 24. On the shaft is mounted a belt-pulley 25, which

is connected with a belt-pulley 26, on the cross-shaft 27, by a belt. (Not shown.) On the cross-shaft 27 is mounted a pinion 28, which meshes with a larger gear-wheel 29 on the cross-shaft 30. This shaft drives the sprocket-wheel 31, over which works the endless sprocket-chain conveyer 5.

The mechanism connecting with the lever 32 for controlling the movement of the sewing or stitching mechanism is that usually employed with this class of sewing machinery, and, forming no portion of the present invention, calls for no specific description herein.

Having thus described the invention, what is claimed as new, and desired to be protected by Letters Patent, is—

1. In an apparatus for sewing filled sacks, the combination with a hinged head carrying the stitching mechanism, of devices for counterbalancing the weight thereof, and means under the control of the operator for actuating said head to position the stitching mechanism during the working of the apparatus to filled sacks of varying height.

2. In an apparatus for the described purpose, the combination with an endless traveling conveyer for the filled sacks, of a supporting-frame, a hinged head carrying the stitching mechanism, devices connected thereto for counterbalancing the weight of the hinged head, and means under the control of the operator for actuating said head during the working of the apparatus to position the stitching mechanism for filled sacks of varying height.

3. In an apparatus for the described purpose, the combination with a vertically-movable head carrying the stitching mechanism, of a fulcrum-lever, a counterbalancing-weight adjustably secured thereon, connection between the fulcrumed lever and the sewing-head, an endless conveyer for the filled sacks, a hinged lever under the control of the operator, and connection between said lever and the head carrying the stitching mechanism for transmitting the movement of the lever during the working of the apparatus to regulate the position thereof in order to place the stitching mechanism in line with the open end of sacks varying in height.

In witness whereof I have hereunto set my hand.

RALPH H. MOORE.

In presence of—

N. A. ACKER,

D. B. RICHARDS.