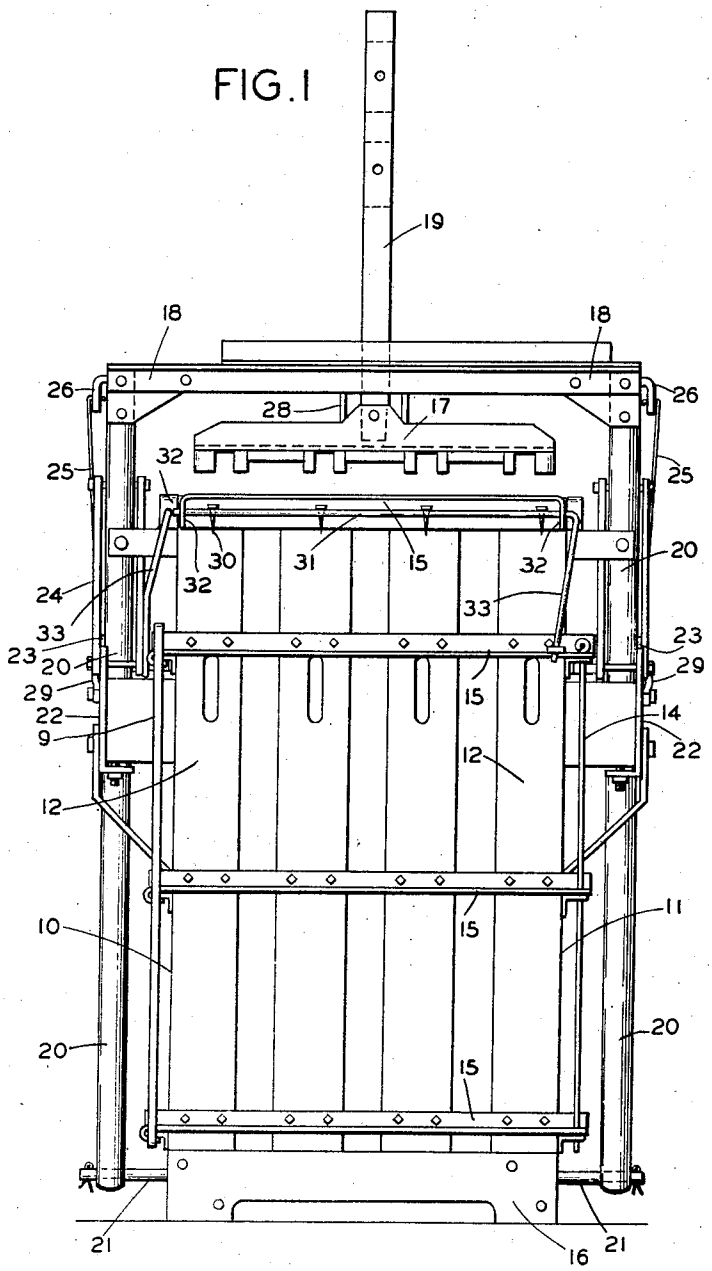
Sept. 20, 1949. F. C. McNAMARA 2,482,680

WOOL PRESS

Filed Oct. 1, 1945 3 Sheets-Sheet 1

FIG. 1



Frances Claude McNamara INVENTOR

BY McGann & Morsbach

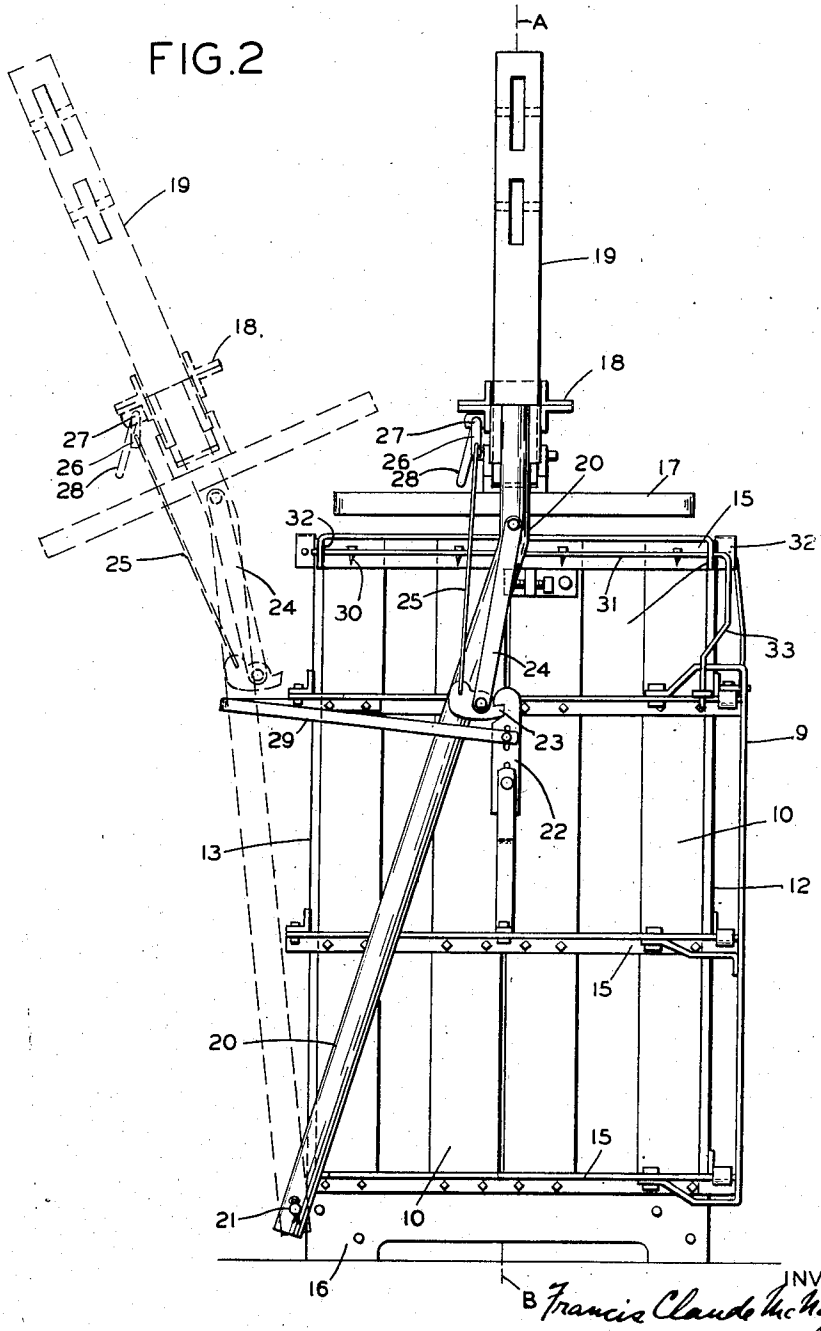
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Sept. 20, 1949. F. C. McNAMARA 2,482,680

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FIG.2



INVENTOR

Francis Claude McNamara

BY McCann & Morsbach

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Sept. 20, 1949. F. C. McNAMARA 2,482,680

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Filed Oct. 1, 1945 3 Sheets-Sheet 3

FIG.3

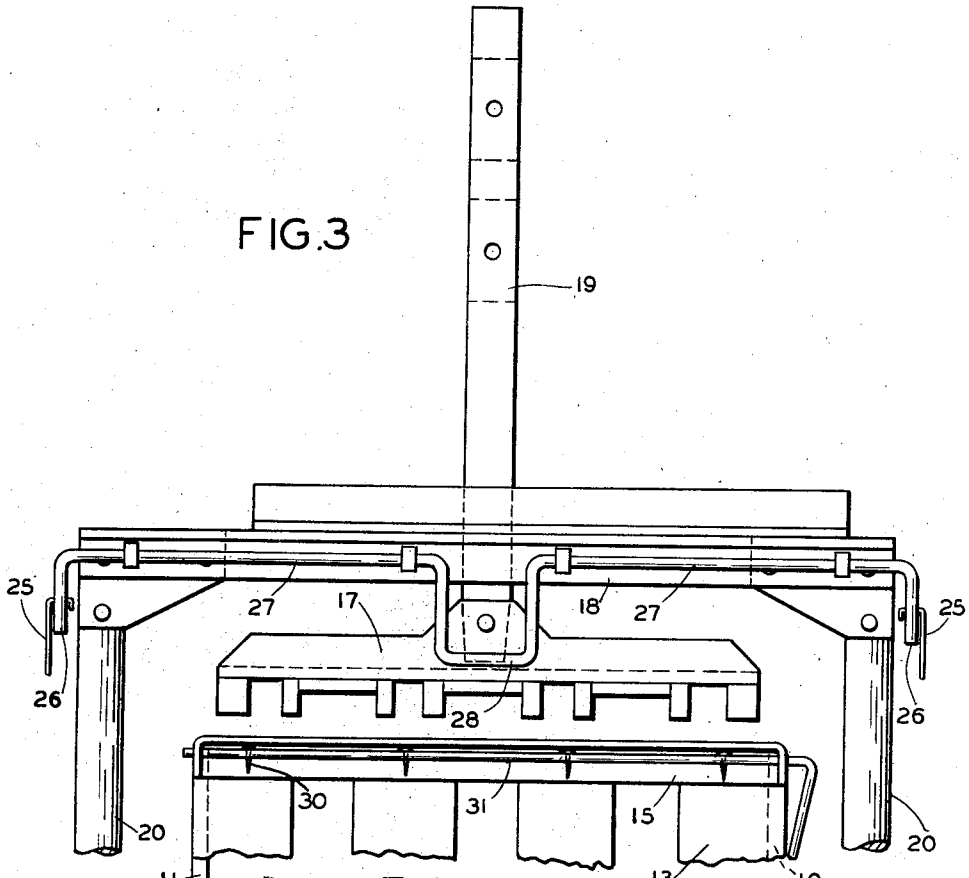
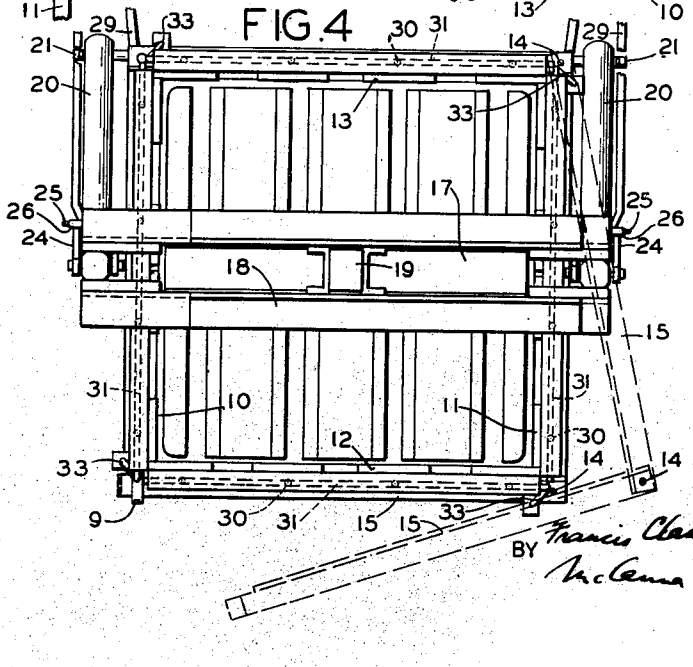


FIG.4



INVENTOR

BY Francis Claude McNamara

McCanna & Morsbach

ATTORNEYS

Patented Sept. 20, 1949

2,482,680

UNITED STATES PATENT OFFICE

2,482,680

WOOL PRESS

Francis Claude McNamara, Wentworthville, near Sydney, New South Wales, Australia, assignor to Sunbeam Corporation, a corporation of Illinois

Application October 1, 1945, Serial No. 620,385
In Australia May 16, 1944

2 Claims. (Cl. 100—12)

1

This invention relates to presses for wool and the like whereby the latter may be compressed into bales or the like in a rectangular box-like body above which a compressing head or monkey is mounted for reciprocable movement with relation to the body.

In presses of this type various means have been adopted so that in the upward position of the monkey, the latter may be moved sideways to give free access to the body of the press when placing the wool in the body during each compressing operation.

It has been proposed to mount the monkey upon rack members slidable in pivoted fittings on each of two opposite sides of the body of the press. It has also been proposed to mount the monkey upon a triangular framework loosely connected to a lever pivoted to the body of the press in such manner that the frame with the monkey attached is swung clear of the top of the press.

This latter construction has the disadvantage that when a system of pulleys and cable operated by a winch drum are used the cables require to be slackened before swinging the monkey clear of the body by means of the pivoted lever. Furthermore, the cables owing to such slackness often require to be replaced upon the usual pulleys before a further compressing movement of the monkey can be made.

An object of the present invention is to provide a box body type of press which is free from the above disadvantages, is simple and quick in operation, is not costly to manufacture compared with the more complicated types of presses already upon the market and provides a clear top opening which facilitates loading of the wool or the like into the body.

The present invention, in common with most wool presses of this type, has a box-like body with sides capable of being opened out when it is desired to withdraw the compressed bale of wool or the like. The box-like body rests upon a base board and is open at the top.

Above the open top a monkey or compressor is mounted in such manner that it may be drawn down upon the wool in the body by a system of pulleys and a cable. Alternatively the monkey may be forced down by other mechanical means such as one or more hydraulic rams.

It has been found that the most convenient way to mount the monkey is upon the end of a vertically movable member or members slidable in a crosshead which is mounted upon pivoted supports disposed on two of the four sides of the body. The vertically movable member, or members, henceforth referred to as a vertically movable member, is freely connected to the monkey so that the latter may tilt slightly to provide for slight irregularity in the packing of the wool into the press body during the filling operation. It will be appreciated that the monkey and the vertically movable member are capable of movement relatively to the crosshead as distinct from the known type referred to above wherein the monkey and its triangular frame float, as it were, with relation to the box body and have no connection with a cross head as a guiding and supporting means for the monkey.

2

In the present invention the monkey is either drawn down by a cable wound upon a winch drum or by other approved means including a mechanically or power operated ram.

The monkey and its supporting crosshead and associated mechanism, according to the present invention, when elevated, is capable of being displaced sideways in reference to the press body to provide free access thereto, by mounting the supports for the crosshead pivotally at their base so that by applying a transverse movement to the said supports the whole of the cross head and its associated parts are swung clear of the top of the body without affecting the position of the monkey and its operating and supporting means relatively to the crosshead and the supports therefor.

The pivoting means for the crosshead supports are disposed in a position off-set to the central vertical axis of two of the sides of the press so that when the said supports are moved to the filling position maximum clearance is provided at the top of the body for loading.

Owing to the movement of the vertical supports about their pivots a latch is provided to retain the said supports with respect to the body during the compressing act. A stop or projection should also be provided on the body or some part associated therewith to engage the supports and limit their movement when in their inoperative position.

In order that the invention may be more readily understood reference will now be made to the accompanying drawings wherein—

Figure 1 is a front elevational view of the body of a press in accordance with the present invention.

Figure 2 is a side elevational view thereof showing the off-set pivoting of the supports for the crosshead.

Figure 3 is an enlarged detail rear view of part of the press showing the upper ends of the sup-

ports and the crosshead and monkey carried thereby.

Figure 4 is a plan view of the structure illustrated in Figure 1.

The press has a box-like body comprising sides 10 and 11, front 12 and rear 13 held together by long pins 14 passed through strappings 15 of angle iron which overlap at the corners. The respective sides, front and rear 10 to 13 inclusive are supported upon a base 16 and the front 12 and side 11 are capable of being opened out about the pins 14, to remove the bale after moving the press locking clamp bracket 9 to the unlocked position. Viewing Figure 4 the front 12 and side 11 are shown in dotted lines in an open position and it will be observed that the front 12 may be swung in a counter-clockwise direction on its pin 14 to a fully open position sufficient to allow removal of the bale through the front opening thus provided.

The top of the box-like body is open to receive the material to be compressed and above the open top a monkey 17 is positioned in such manner that it may be moved up and down as desired with relation to the body by known means such as a system of pulleys and a cable carried upon a crosshead 18 through which a vertically movable member 19 is capable of sliding. The monkey 17 is pivotally mounted at the lower end of the vertical member 19.

According to the present invention the crosshead 18 carrying the monkey 17 is mounted upon pivoted supports 20 disposed at the sides 10 and 11 of the body.

To enable the greatest possible freedom of movement to be given to the monkey 17 in a transverse direction for the purpose of placing the material in the body of the press prior to the act of compression, the supports 20 for the crosshead 18 are pivoted to the body or the base 16 thereof upon pins 21 or the like disposed offset from the central vertical axis (indicated by the interrupted line A—B in Figure 2) of the sides 10 and 11 of the body of the press as by so doing the greatest possible freedom of movement for the monkey with respect to the body is obtained.

To retain the respective supports 20 in their operative position catches 22 which are vertically adjustable are provided having notched out portions for receiving therein the latching ends of respective pawls 23 pivotally mounted on arms 24 and capable of being withdrawn from the said catches 22 by a tie rod 25 which may be lifted by arm 26 on the respective ends of a transverse rod 27 having a crank handle 28. The crank handle 28 is also used to pull the crosshead 18 and monkey 17 clear of the body of the press, about the pins 21 of the supports 20 into the broken line position in Figure 2. As best shown in Figs. 2 and 4 of the drawings, a pair of somewhat U-shaped guide brackets 29 are provided with one leg of each of the U's bolted to an associated one of the angle irons 15 and the other legs connected to the associated latches 22. These brackets are adapted to receive and support in the bight of the U the supports 20 when the crosshead and monkey assembly are to be supported clear of the press opening to allow wool to be placed in the said body.

The securing means for the supports 20 may take several forms, provided they prevent displacement of the said supports 20 during operation of the press.

Wool pack hooks 30 are mounted upon a plurality of transverse rods 31, one for each side of the body, capable of being turned in end bearings 32 by handles 33. The hooks 30 engage the downturned end portions of the pack and hold them during the compressing act and may be turned in an arcuate manner into and out of engagement with the said wool pack easily by movement of the handles 33. In the preferred practice, the pack referred to is in the form of a bag of a size substantially filling the box-like body and having at the top four end portions or flaps corresponding with the walls of the body. These end portions are of sufficient length to permit of turning them outwardly over the top of the body walls so that they may be pierced by the hooks 30 are described. These end portions of the pack will be held by the hooks 30 when they are pointed downwardly and by movement of the handles 33 the hooks may be swung to an upward position to release the end portions after the pack has been filled. The ends of the handles 33 are preferably held by suitable means when the hooks 30 are functioning in their holding positions.

Any suitable system of pulleys and cables or other means may be used for operating the monkey, such, for example, as the arrangement disclosed and claimed in my co-pending application, Serial No. 620,386, filed October 1, 1945.

While there has been disclosed a single embodiment of the present invention, it is not desired that the invention be limited to the construction shown and described, for it will, of course, be obvious to those skilled in the art, that changes and modifications may be made without departing from the invention in its broader aspects, and it is therefore aimed in the appended claims to cover all such changes and modifications as fall within the true spirit and scope of the present invention.

I claim:

1. Improvements in wool presses and the like comprising a box-like body, a monkey for compressing the material in the body, a vertical member carrying said monkey, a crosshead for slidably receiving said vertical member, means for supporting the crosshead above the body, said supporting means being capable of transverse movement with respect to the body whereby the monkey is moved away from the open top of the body to facilitate the placement of material to be compressed in the body, and means operative between the supporting means and the body for releasably latching the supporting means in the operating position with the crosshead above the body, said latching means comprising a pawl on said supporting means and a catch member on the body adapted to be engaged by said pawl when the supporting means is moved to said operating position, and manually operable means mounted to swing with the crosshead and operable to release said pawl from said catch member, said supporting means being disposed at an angle with respect to the vertical both while in said operating position and also while moved clear of the open top of said body.

2. In a press for wool or the like comprising a box-like body, a pair of upwardly extending lever arms one disposed at each side of said body, means for pivotally supporting the lower ends of said lever arms from the bottom rear corners of said box-like body, a cross-head extending across the top of said box-like body and supported on the upper ends of said lever arms, said lever arms being arranged to support said cross head completely clear of the top of said box-like body with a minimum of angular displacement of said lever

arms from the vertical, said lever arms being disposed at an acute angle with the vertical axis of said body both while in their operating positions as well as when the cross head is moved clear of the top of said body, a vertically movable member slidably mounted on said cross head, and a monkey mounted on said vertically movable member for compressing material inserted into said body.

FRANCIS CLAUDE McNAMARA.

REFERENCES CITED

The following references are of record in the file of this patent:

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