May 13, 1930. R. E. MANLEY 1,758,451

PRESS TABLE

Filed Oct. 15, 1926

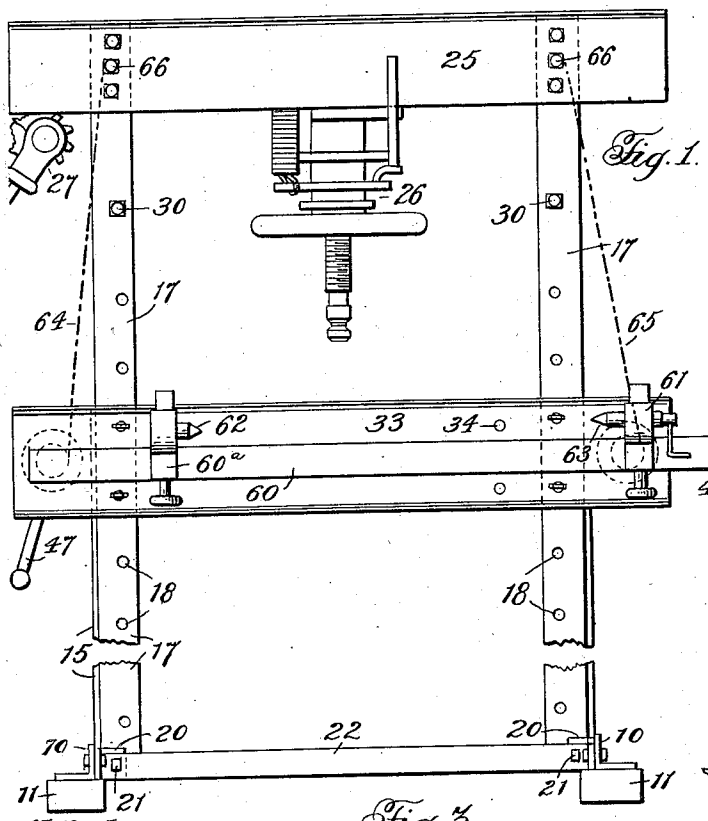

Fig. 1.

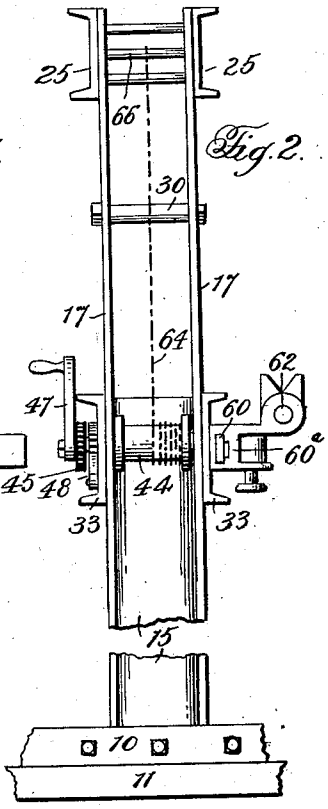

Fig. 2.

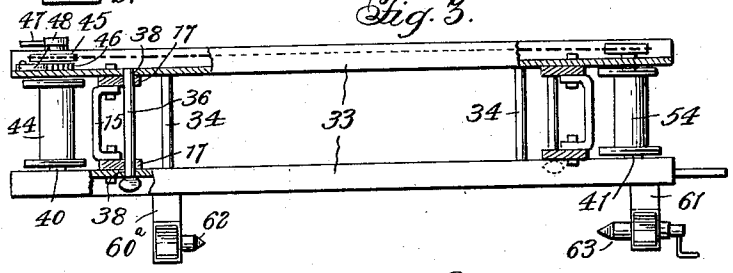

Fig. 3.

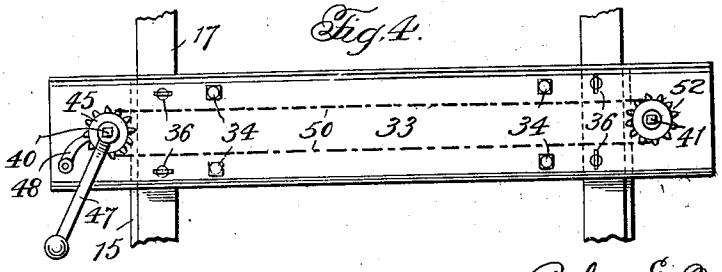

Fig. 4.

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UNITED STATES PATENT OFFICE

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PRESS TABLE

Application filed October 15, 1926. Serial No. 141,848.

This invention relates to presses and has for its principal object the provision of a press having a table which can be elevated with minimum of difficulty and expense into a position where it can be bolted to the standards.

A further object of the invention is the provision of means to eliminate the heavy and also awkward counter-balancing system necessary to raise the tables of the heavier type presses.

In garage equipment presses it is essential to have the press sufficiently sturdy to take care of any work that may be brought to it, at the same time providing as clear a field for the work as is possible and it is also essential that the table be so arranged that it can be elevated by one man.

The device forming the subject matter of this application provides a very simple table so constructed that a mechanic can wind both drums at the same time, elevating the table and can hold the table suspended in approximately the desired position by means of a pawl and ratchet and can then by a slight movement of the suspending chains raise the separate ends to exact alinement for bolting.

In the drawings:—

Figure 1 is a front elevation.

Figure 2 is an edge elevation.

Figure 3 is a horizontal section taken just below the top flanges of the table.

Figure 4 is a rear view of the table.

The base of the press is composed of a pair of angle irons 10 preferably bolted to the skids 11 and also directly connected to the channel members 15. At the side of each channel 15 and secured thereto in a plurality of points are two bars 17 each perforated at regular intervals as at 18 and bolted to small angle pieces 20 which are also connected to the base angle pieces 10. Preferably the bolt 21 connecting the bars 17 to the angle pieces 20 also connect the horizontal straps 22 which space apart the two standards and prevent their spreading at the bottom, these straps being tension members principally.

At the top the four bars 17 are connected together by the usual cross piece 25 which carries centrally a press 26 and at one side a small rack press 27. Somewhat below the cross piece 25 the two bars 17 of each pair are connected together by a pipe spacer 30 of the usual type, that is, a piece of piping between the bars and a bolt passing thru the pipe and the two bars, the pipe spacing the parts apart the proper distance, i. e., the overall width of the channel and the bolt holding the two bars together and against the pipe. This structure per se is well known and old.

The table consists of two channels 33 back to back and spaced by four pipe spacers 34 so as snugly to slide along the two standards between the bolts 30 and the top of the angles 10 and is held in place at the desired height by inserting pins such as 36 in two or more of the holes 38 in the channels 33 when alined with holes 18 in the bars 17.

Two square shafts 40 and 41 are rotatably mounted in the table one at each side of the standards. The drum 44 is nonrotatably mounted on shaft 40 which carries at its rear a sprocket wheel 45, a ratchet wheel 46, and a handle 47. A pawl 48 pivotally mounted on the web of the channel engages the ratchet wheel 46 during elevation of the table. An endless chain 50 connects the sprocket wheel 45 with a similar sprocket wheel 52 on shaft 41, the latter carrying a drum 54 exactly similar to the drum 44.

At the front the table carries a guide 60 spaced somewhat away from the web of the channel so as to receive slidably a pair of work supports 60[a] and 61 carrying respectively, a fixed center 62 and a movable center 63, the brackets with their V-slots and centers being very convenient for test purposes. Chains 64 and 65 are each connected to one of the bolts such as 66, which connect the standards to the cross piece and are fastened at their other ends to the proximate drum whereby winding the handle 47 will elevate the table while maintaining it constantly parallel to the cross piece, in other words, horizontal.

When the table has been elevated to a point just short of the desired position, the handle 47 is released, the pawl 48 holding the two ends of the table in position. The mechanic thereupon presses in the chain 64 or pulls it

out, whichever is most convenient, either motion elevating the near end of the table. With his free hand the mechanic inserts the pins 36 thru the holes in the table and in the bars 17, which are alined by the sideways movement of the chain as just described.

What I claim is:—

1. In a device of the character described, a pair of standards, a cross piece connecting the tops of the standards, a table slidable along said standards, said table consisting of two channels arranged back to back and spaced apart to receive the standards, a drum carried between the channels at each side of the standards, a pawl and ratchet mechanism for revolving both drums, a chain attached to each drum and extending diagonally to the top of the proximate standard so that by pushing or pulling on the chain in a horizontal direction the proximate end of the table is elevated, and means for supporting the table from the standards.

2. In a device of the character described, a pair of standards, a cross piece connecting the tops of the standards, a table slidable along said standards, said table consisting of two channels arranged back to back and spaced apart to receive the standards, a drum carried between the channels at each side of the standards, a pawl and ratchet mechanism for revolving both drums, a chain attached to each drum and extending diagonally to the top of the proximate standard so that by pushing or pulling on the chain in a horizontal direction the proximate end of the table is elevated, and a plurality of pins passing thru alined holes in the standards and table for supporting the table.

3. In a press table, a pair of vertical standards, a horizontal table slidable along the standards and extending to each side thereof, a drum at each end of the table outside of the standards, and flexible means connected to the drums for raising the table on the standards while maintaining it in horizontal position, said flexible means being located entirely outside of the space between the vertical standards.

4. In a press table, two vertical standards each consisting of a pair of spaced rolled steel sections, a pair of horizontal rolled steel sections spaced apart to receive between them the two standards and forming a work receiving table extending beyond the standards at each side, and means carried by the sections outside of the standards for raising and lowering the table while keeping it horizontal.

5. In a press table, a plurality of parallel spaced vertical standards, a press supporting cross piece connecting the tops of the standards, a horizontal work supporting table slidable along the standards and extending beyond the standards at one side, and means including a rotatable member mounted on the table in the extended end to aid in raising and lowering the table, said means being located entirely to the outside of the inner face of the standard whereby the entire space between the parallel spaced vertical standards may be used to receive work.

In testimony whereof I affix my signature.

ROBERT E. MANLEY.