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SHEET HANDLING DEVICE FOR PRESSES

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6 Sheets-Sheet 3

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6 Sheets-Sheet 5

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My present invention relates to devices for handling the sheets of paper or cardboard as they come from a printing press, cutter and creaser, or any other form of machine which operates on sheets and from which the sheets are delivered in sequence and are arranged in a pile. I have applied my invention to a printing press and in the present case I have shown my invention as so applied and from which the application of my invention to other forms of machines will be readily understood.

The invention relates to the devices for delivering the individual sheets from the press and for piling them, and to a lowering pile table set off at the end of the press and upon which the sheets are piled. Heretofore, it has been common practice to deliver the sheets from a printing press, upon a jogger board placed over the inking devices but in such cases but a very small pile of sheets can be stacked before the pile must be removed, due to the limited space between the delivery device and the jogger board; and in most cases an attendant is kept occupied in removing these small stacks. Extended delivery devices have been devised wherein the pile table is set off at one end of the press so that the table may be started at an elevation approximately that at which the sheets leave the delivery device, and lowered to a point close to the floor, in order that a large pile of paper may be stacked on the table to permit a long run of the press to be made before it is necessary to remove the stack. When the stack or pile is to be removed, a truck is rolled right under the pile table and the whole pile removed on the truck. In my Patent No. 1,533,889 such a device is shown and cross reference will be made herein to that case in order to simplify the present case, since the present invention is of the same general character as that shown in said co-pending case.

One object of my invention is to provide a pile table set off at the end of the press and mounted upon a support or frame which may be bodily moved toward and from the press. It may be moved away from the press temporarily in order to provide access to the inking fountain or other parts of the press and then returned to a position nearer the press when the adjustments to the latter have been completed. The piling table may therefore have its permanent or operating position near the press and it may be moved away or forwardly only temporarily as may be necessary. The floor space permanently occupied by the press and sheet handling device may be kept down as far as possible with an extended delivery. The arrangement may in some cases make it unnecessary to redesign the press as a whole in order to apply the extended delivery device to it because the pile table may be placed close to the press and still it may be temporarily removed when the ink fountain is to be adjusted or any other temporary operation is to be attended to.

The present pile table and its frame are movable toward and from the press and devices are supplied for moving them easily even if there is a heavy pile of paper on the table at the time. I also provide means for readily bringing the table and its frame back into position and into alignment with the press. The invention also embodies means for quickly detaching and reattaching the table frame and the press.

Another object of my invention is to provide a delivery carriage which is foldable in order that part of the carriage may be swung up to make room for the operator to get at the ink fountain and other parts of the press without having to lift the weight of the entire carriage. The carriage is foldable in whatever position it may be in relatively to its path of travel on the tracks.

Another object of my invention is to provide a foldable screen over the ink fountain and rollers to protect the latter from dust and to prevent a broken tape from falling thereon; and the screen device is such that the screen may be very quickly moved out of the way to give ready access to the ink fountain and rollers. Other advantages will be set forth in the detailed description hereinafter.

In the drawings forming part of this application,

Figure 1 is a side elevation of one end of the printing press to which my present invention is applied,

Figure 2 is an end elevation of the pile table frame,

Figure 3 is a plan view of part of the carriage and the slide rails,

Fig. 4 is a side elevation thereof,

Figure 5 is an end view showing the device for moving the pile table,

Figure 6 is a sectional view showing the same parts,
Figure 7 is an enlarged detail of the winding drum.
Figure 8 is a plan view thereof,
Figure 9 is a sectional view of part of the winding device,
Figure 10 is a plan view thereof,
Figure 11 is a diagrammatic view showing the arrangement of the tapes which convey the printed sheets,
Figure 12 is a detail view showing one form of the device for operating the protecting apron,
Figure 13 is a side elevation showing another form of protecting apron.
Figure 14 is a sectional view showing the apron device illustrated in Figure 13, and Figure 15 is a sectional view of the apron device shown in Figure 12.
Figure 16 is a sectional view through the post 8 and illustrating the device for clamping the delivery device in position.
In the drawings I have shown the front end of a two revolution printing press. In such presses the sheets coming from the impression cylinder are carried forward one at a time and are delivered at the front end of the press where the present invention is located. In the drawings 1 indicates the frame of the press at the front or delivery end and to identify the structure here shown by way of example I would say that it is a "Babcock Optimum" press. I have shown the press shaft 2 of the press from which is operated the usual drop hook 3 and the rod 4 connected with this drop hook and reciprocating with it, transmits the power for operating the table lowering device. I have indicated the ink fountain and fountain roller of the press at 5 and one object of the present device is to render this part of the press accessible while permitting the use of a pile table arranged close to the press.
The upper bracket 6 of the press frame 1 supports the slide rods or tracks 7 on which the delivery carriage travels during part of its complete stroke. These rods 7 correspond with present practice.
Pile table and frame. These are set off at the front or delivery end of the press. The frame of the pile table is here shown as composed of a pair of uprights or standards 8 from which project tubular supports 9 forming continuations of the standards. In the standards 8 at their lower ends is journaled a shaft 10 which extends across the table frame and there is a wheel or roller 11 keyed on each end of this shaft to movably support the standards 8 and to permit them to be rolled along the floor. Forwardly of the standards 8 there is a pair of standards 12, here shown as of tubular construction; and at the bottom of each of these there is a wheel or roller 13 mounted on a stud 14 journaled in the foot of each standard 12.
The wheels or rollers 11 form means permitting the pile table frame to be moved along the floor toward and from the press and I prefer to use for this purpose wide faced rollers mounted on fixed studs or shafts to keep the table frame aligned with the press as far as possible.
The rear standards 8 are connected near the bottom with the forward standards 12 at each side of the frame by rods 15 pivoted at 16 to the feet 16 and adapted to hook over the pins 17 on the rear standards; and these rods may be swung upwardly whenever desired to permit an unloading truck to be wheeled between the front and rear standards of the table frame. At their upper ends the front and rear standards are connected rigidly together by channel beams 18 extending lengthwise of the table frame at each side.

There is a shaft 19 journaled in one of the rear standards 8 of the table frame (see Figure 5) and this is provided with manual operating means here shown as a spoke hand wheel 20 by means of which the shaft 19 may be revolved. At the inside of the standard 8 the shaft 19 is provided with a small sprocket wheel 21 and the endless chain 22 which engages this sprocket wheel also travels around the sprocket wheel 23 arranged on the shaft 10 which carries the wheels or rollers 11. By turning the hand wheel 20 the shaft 10 is revolved through the sprockets 21, 23 and chain 22 and by means of these devices the entire table frame may be moved along the floor in the direction of the length of the frame, or toward and from the end of the press.
I have provided means for clamping the table frame in the operative position and for guiding it into proper alignment with the press when it is returned to position. In Figure 1 I have shown a plate or lock 24 fastened to the floor and from this extends forwardly a toe 25 with which the table carriage engages when moving toward the press; and this toe serves as a guide to move the table frame slightly laterally if necessary to bring the table frame into proper alignment with the press in case the table frame does not move in a perfectly straight line due to irregularities in the floor. The bracket or block 26 is bolted onto the plate 24 by means of bolts 27 passing through elongated slots 28 in the bracket 26 to permit the latter to be adjusted toward and from the press to locate the operative position of the table frame in the direction of its length. On this bracket 26 there is pivoted at 29 a lever 30 fitted with an adjusting screw 21. When the table frame is in the operative position; i.e., the position it occupies when the press is operating and the delivery device is delivering sheets upon the pile table, the frame rests against the abut
ment surface 32 of the bracket 26 and it is held in lateral alignment by the toe 25. The set screw 33 engages the opposite side of the web 34 of the rear standard to the abutment 32 and it holds the table frame in this position against movement lengthwise. To release the table frame and permit it to be moved away from the press it is only necessary to kick off the lever 30 to disengage the screw 33 from the web 34 and then the table frame is released and it may be moved away from the press by operating the handwheel 20. When the table frame is again returned to the operative position it will be re-engaged by the screw 33 and held against the abutment 32. When the device is first set up the bracket 26 is adjusted to bring the table frame in proper position in relation to the press and the bracket 26 is then clamped and it requires no further adjustment.

The table proper, shown at 35, may be of any form and herein I have shown merely a board platform having cleats on its under side. This table receives the pile of sheets upon its upper surface and it rests upon shackles 36 carried on the lower, free ends of the four cables 37. The table is movable from a position just under the path of the delivery carriage to a position close to the rest upon the floor, being supported in its various positions by the supporting cables 37. The cables 37 pass over a pair of sheaves 38 mounted on the forward portion of the channel beams 18 and they pass around the rear sheaves 39 and then turn downwardly. The other ends of these cables are wound on winding drums 40 mounted on the shaft 10 which is journaled in the rear standards 8. The shaft 10 may be operated to wind or unwind the cables and thus raise or lower the pile table by the same means as that shown in my said co-pending application and as the device is there illustrated in detail reference may be had to that case for an example of a table lowering device. Or, any other form of lowering device may be used in so far as the present invention is concerned. So far as the parts of the lowering device herein are shown they correspond with the parts in said co-pending case. The link or pitman 4 connected to the drop hook of the press operates the lever arm 41 on the stud 42; and the other arm of this lever operates through a link 45 to oscillate a clutch device 44. The latter turns the shaft 45 step by step any desired degree according to adjustments; and the worm 46 on this shaft operates the worm gear 47 on the shaft 10.

A drum 40 receives the cables thereon. There is a hand crank 51 for turning the shaft 10 and the gear 52 on this shaft operates the gear 53 on the shaft 45, whereby the table may be raised or lowered by hand power.

The rod or pitman 4 has a forked end 54 engaging the pin 55 on the lever arm 41 so that the pitman may be quickly disengaged from the lever arm 41 whenever the pile table frame is to be moved away from the press. The lowering device is operated automatically from the press to lower the pile table the thickness of a sheet at each printing operation of the press to maintain the top of the pile of sheets at a constant level suitable for the delivery device.

Sheet delivery device. The delivery device shown herein is of the carriage type; that is, the sheets are carried over the pile table by a movable device called a carriage and from which the sheets are delivered upon the pile. In the drawings I have shown the usual rear slide rods or tracks 7 on which the carriage moves during part of its stroke. These rods or tracks extend over part of the press, being arranged just in advance of the impression cylinder. In advance of the rear slide rods 7 I have arranged the front slide rods 56 which also serve as tracks for the traveling carriage. The slide rods 56 are arranged above the press, more particularly above the ink fountain. Both sets of slide rods 7, 56 correspond with present practice and are part of the ordinary press. In advance of or forming a continuation of the slide rods 56 I have provided rods or tracks 57 the ends of which laterally overlap the ends of the rods 56. The rods 57 are fixed to and are movable with the pile table frame so that when the latter is moved toward or from the press these rods move as parts of the table frame. Thus, the several rods or tracks form a continuous track for the carriage when the pile table frame is in operative position, extending over the press and the plane of the pile table.

The delivery carriage comprises in part the usual side bars 55' carrying the flanged wheels 59 which travel on the slide rods 7 and partially support the carriage; and the flanged wheels 60 which travel on the slide rods 56 and also partly support the carriage. The front end of the main part of the carriage is indicated at 61. This carriage is provided with a driving rack 62 which is preferably operated the same as the rack shown in the patent to Fenner No. 1,009,441 or like the corresponding rack in the well known "Babcock" printing press. By this device the carriage is reciprocated back and forth for each complete printing operation of the press. On the carriage I have provided the front tape roll 63 which the sheet carrying tapes 64 straddle and this roll, extending across the carriage and serving for a number of parallel tapes, corresponds in function with the tape roll of the said Fenner patent. The rear tape rolls on the carriage and the press are the same as heretofore and these are designated 65 and 66.
The carriage has an extension at its forward end which is foldable in relation to the remainder of the carriage. This extension is comprised in part of the short section 67 (the construction being duplicated at opposite sides of the carriage) which is bolted to the usual carriage rack 62 at 68. Pivoting at the points 69 is an extension bar 70 and connected to these bars 70 is a shaft 71 carrying the flanged wheels 72 which travel on the bars or tracks 57 and movably support the carriage extension.

The carriage extension carries a front roll 73 over which part of the sheet carrying tapes 64 are looped, the remainder of the tapes looping around the roll 63. The roll 73 is disposed at least one sheet length in advance of the roll 63.

On the main carriage I provide the arms 74 which carry the extension roll 75 over which the upper belts 76 engage and these belts perform the same function as the upper belts in said Fenner patent; i.e., they prevent the sheets flying off the supporting and conveying tapes 64. The carriage extension is also provided with brackets 77 which carry the extension roll 78 over which the upper belts 76 are guided, and these belts perform the same function on the carriage extension as the belts 76 on the main carriage.

The extension carriage frame members in addition to being pivoted to the main carriage frame at 69 are connected together by rods 80. The belts 81 on the bars 76 engage in recesses 82 in the bars 67 and form stops to prevent the bars 70 from dropping below the desired level. At 83 I have shown a stop or rest against which the bars 70 are adapted to rest when swung up.

Screens. I have shown screens for preventing dirt or broken tapes from dropping onto the ink fountain or fountain roller and these screens may be readily moved out of the way to give free access to the inking apparatus. There is a sheet of fabric 84 called the screen, which is adapted to be rolled upon a spring roller 85 mounted in the brackets 86 on the press frame. This screen had a rod 87 in the hem on its free end, which rod is adapted to be hooked onto the hooks 88 when the screen is pulled out, so that the screen lies over the ink fountain and fountain roller and protects these from falling particles of paper or dust. When access is to be had to the fountain, the screen 87 is simply unhooked and the screen is automatically rolled upon the spring roller 85. The screen 89 corresponds with present practice and its forward end hooks onto the screws 90. This screen extends forwardly from near the impression cylinder but since it is not new in the present case further description is unnecessary.

In Figures 12 and 15 I have shown a modified form of screen device. Herein, there are pins 91 on the bracket 92 and having eyes in which the rod 93 slides, and the construction being at opposite sides of the press. The screen 94 is supported upon and carried by these rods 93 by means of springs which pull the screen taut. At the forward end of the screen there is a spring 95 connected with one corner thereof and the other end of the spring connects with a pin 96 on the forward end of the rod 93. There is a spring 97 connected with the rear corner of the screen and the other end of this spring is connected with a pin 98 on the rear end of the rod 93. When the delivery device is in operation the rods 93 with the screen are slid forward to a position where the rear pins 95 stop against the pins 99 on the bracket. In this position the screen protects the ink fountain and roller against falling dust, etc. When the screen is to be moved back to give access to the fountain it is only necessary to slide the rods 93 backwardly and they carry the screen into the dotted line position shown in Figure 3. I prefer to use this form of screen as the most handy but the broad feature of making the screen retracting is contained in both forms of devices shown herein.

I have not shown herein a complete jogger device because the jogger device shown in my said co-pending application may be bodily incorporated in the present structure for jogging the top sheets of the pile resting on the pile table. I have shown herein only enough of the jogger devices to illustrate the manner of connecting it up with the press.

Operation. When the press is in operation and the delivery device is operating to deliver the sheets on the pile table, the table frame will be positioned near the press as shown in Figure 1, the frame being held from moving by the lever 90. At each complete operation of the press; that is, at each period that a sheet is printed and delivered from the impression cylinder, the delivery carriage makes one complete stroke away from the impression cylinder to deliver a sheet and back toward the cylinder again to receive another sheet. The sheet is first received upon the tapes 64 near the impression cylinder and it travels out a short distance from the cylinder to its first stopping position, this operation taking place while the carriage makes its first forward stroke. When the carriage is making its return stroke the upper runs of the tapes 64 remain idle and the first sheet also remains idle at the first stopping position. Upon the second forward stroke of the carriage the first sheet advances with the tapes 64...
a second stage which brings the sheet to a position over the fountain. Upon the third forward stroke of the carriage the sheet is carried upon the tapes 64 on the carriage extension to a position over the pile table; and on the next return stroke the tapes 64 peel off under the sheet and the latter drops upon the top of the pile. The table is automatically lowered in time with the press so that the top of the pile of sheets is always in position to properly receive the sheets as they come from the delivery carriage.

During the operation of the press as above described the table frame is positioned near the end of the press and is held in place by the lever 30. If it is desired to get at the ink fountain or any of the parts of the press at the forward end, the press is first stopped. The rod 4 is disconnected from the lever arm 41 thus disconnecting the operative connections between the press and piling device. The lever 30 is then kicked over to release the table frame, and the hand wheel 20 is turned to move the table frame on its wheels directly out away from the press. The rods or tracks 57 will simply slide away from their laterally overlapping relation with the rods 56 or tracks as the former move with the table frame. The forward part of the carriage is grasped by the operator and it is swung upwardly upon its pivot 69 until it rests against the stop arm 83. This opens the space between the press and pile table frame. The Screen 62 is swung down to bring its flanged wheels 72 onto the tracks 57; although this may be done even before the table frame has been raised.

The lever 30 is then kicked over to release the table frame, and the hand wheel 20 is turned to move the table frame back to the press. The rod 4 is hooked onto the lever arm 41. The device is now ready for operation as before. These several operations may all be performed very quickly so that the press need not be stopped for only a very short period of time.

It will be apparent that in this form of my invention in folding the carriage back only a portion of the total weight of the carriage need be lifted. This is very convenient for smaller presses and in the larger sizes it is most important because it would require considerably more effort probably the strength of more than one person would be required, to lift the carriage as a whole. Ample space is provided with the lifting of a portion only of the carriage. When the carriage extension is swung upwardly in the manner described the tapes 64 engage against the bar 103 and they bend around this bar so that these tapes do not slack off into loose loops nor is there any great strain placed on them, due to the location of this bar. The operation of swinging the extension up and back does not displace the tapes 64 on the several tape rolls. The extension may be swung up or down when the carriage is in its forward position or in its rearward position, and the carriage may be run back on its tracks after the extension has been raised.

From the foregoing it will be apparent that the extension pile table may be located close to the press while in operation and that it may be quickly run out and the carriage may be folded up to give complete access to the parts of the press.

Having described my invention what I claim is:

1. The combination with a press having slide rails for a delivery carriage, a table frame and a lowering pile table thereon arranged to receive the sheets from said press; slide rails on said table frame adapted to form continuations of said slide rails on the press, means for moving said frame and table toward and from said press, and a delivery carriage traveling on said slide rails over the press and said table.

2. The combination with a press having slide rails for a delivery carriage, a table frame and a lowering pile table thereon arranged to receive the sheets from said press; slide rails on said table frame the ends of which are adapted to overlap the ends of said first slide rails to form continuations thereof; means for moving said frame and table toward and from said press; and a sheet delivery carriage traveling on said slide rails over the press and said table.

3. The combination with a press having slide rails on which a reciprocating delivery carriage is adapted to travel and a delivery carriage adapted to travel on said rails and
composed of foldable sections one of which sections is adapted to rest on said rails while another section is folded in relation thereto.

4. The combination with a press having slide rails on which a reciprocating delivery carriage is adapted to travel and a delivery carriage adapted to travel on said slide rails, sheet supporting tapes extending longitudinally of said carriage, said carriage being composed of foldable sections one of which sections is adapted to rest on said rails while another section is folded in relation thereto, and means against which said tapes engage when said carriage section is folded for the purpose set forth.

5. The combination with a press having slide rails on which a reciprocating delivery carriage is adapted to travel and a delivery carriage adapted to travel on said slide rails, sheet supporting tapes extending longitudinally of said carriage, said carriage being composed of hinged sections one of which sections is adapted to rest on said rails while another section is folded in relation to said first section and means arranged near the pivotal line of said carriage sections against which said tapes engage when said second carriage section is folded upwardly for the purpose set forth.

6. The combination with a press of a pile table frame set off at the end of the press, a lowering pile table thereon, arranged to receive the sheets from said press and a reciprocating carriage movable over said press and said pile table, said carriage comprising foldable sections, one of which is adapted to rest on its support while the other section is folded in relation to said first section.

7. The combination with a press of a pile table frame set off at the end of the press, a lowering pile table thereon arranged to receive the sheets from said press, slide rails on said press, slide rails on said frame, and a reciprocating sheet delivery carriage movable on said rails, over said press and pile table, said carriage comprising foldable sections, one of which is adapted to rest on its supports while the other section is folded in relation to said first section, and means for moving said frame and pile table in relation to said press.

8. The combination with a press of a pile table frame set off at the end of the press, a lowering pile table thereon arranged to receive the sheets from said press, slide rails on said press, slide rails on said frame, a reciprocating sheet delivery carriage movable on said rails and having sheet supporting tapes extending lengthwise of said carriage, said carriage being composed of foldable sections whereby one section may be folded upwardly while the other section rests on said rails, means against which said tapes bend when said carriage section is folded upwardly and means for moving said frame and pile table in relation to said press.

9. The combination with a press of a pile table frame, a lowering pile table thereon arranged to receive the sheets from said press, slide rails on said press, slide rails on said frame, and a reciprocating sheet delivery carriage movable on said rails over said press and pile table and comprising foldable sections one of which is adapted to rest on said rails while the other section is folded in relation to said first section, said carriage being adapted to slide on said rails in both folded and extended conditions.

10. The combination with a printing press having an ink fountain, of a pile table frame and a lowering pile table thereon, arranged to receive the sheets delivered from said press, and a screen arranged over the ink fountain of said press and under the path of travel of the sheets as they are delivered from the press of said pile table.

11. The combination with a printing press having an ink fountain, of a pile table frame and a lowering pile table thereon, arranged to receive the sheets delivered from said press and a screen arranged over the ink fountain of said press and under the path of travel of the sheets as they are delivered from the press to said pile table, and means for mounting said screen whereby it may be retracted to expose said ink fountain.

12. The combination with a printing press having an ink fountain, of a pile table frame and a lowering pile table thereon arranged to receive sheets delivered from said press, a screen arranged over the ink fountain of said press and under the path of travel of the sheets as they are delivered from the press to said pile table, and a slidable support on which said screen is mounted, whereby said screen may be moved to expose the ink fountain.

13. The combination with a press having slide rails for a delivery carriage, a table frame movably supported to permit it to be moved toward or from the press, a lowering pile table on said frame arranged to receive the sheets from said press, slide rails on said table frame, said second slide rails being adapted to lap by said first rails to form a continuation thereof.

14. The combination with a press having slide rails for a delivery carriage, movable table frame and a lowering pile table thereon arranged to receive the sheets from said press, slide rails on said table frame overlapping said first rails, an appreciable extent whereby the said first and second slide rails will form a continuous support for the carriage when said table frame is moved away from said press.

15. The combination with a press having slide rails on which a reciprocating delivery carriage is adapted to travel, a deliv-
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Carriage adapted to travel on said rails, said carriage being made in sections having articulated connections, one of said sections being adapted to rest on said rails while another section is lifted off said rails.

16. The combination with a press having slide rails on which a reciprocating delivery carriage is adapted to travel, a delivery carriage adapted to travel on said rails, said carriage having sheet supporting tapes extending longitudinally thereof, said carriage being composed of sections being adapted to rest on said rails while another section is lifted off said rails, and means against which said tapes engage when said carriage section is raised.

17. The combination with a press having slide rails on which a reciprocating delivery carriage is adapted to travel and composed of sections having an articulate connection, one of said sections being adapted to rest on said rails while another section is lifted off said rails, said carriage being adapted to travel on said rails when said latter carriage section is in either normal or raised position.

18. The combination with a press having slide rails for a delivery carriage, a movable table frame, and a lowering pile table thereon arranged to receive the sheets from said press, said press slide rails being extended into the table frame and slidably supported on the latter.

19. The combination with a press having slide rails for a delivery carriage, a movable table frame, and a lowering pile table thereon arranged to receive the sheets from said press, said press slide rails being extended and slidably supported on the said table frame.

20. The combination with a press having slide rails for a delivery carriage, a movable table frame beyond the end of the press and a lowering pile table thereon arranged to receive the sheets from said press, said press slide rails being extended over the table frame.

21. The combination with a press having slide rails for a delivery carriage, a movable table frame beyond the end of the press, and a lowering pile table thereon arranged to receive the sheets from said press, slide rails on said table frame said press slide rails being extended and adapted to lap by said second slide rails.

22. The combination with a press having slide rails for a delivery carriage, a movable table frame and a lowering pile table thereon arranged to receive the sheets from said press slide rails on said table frame, said press slide rails being extended and supported by said second slide rails.

23. The combination with a press having slide rails on which a reciprocating delivery carriage is adapted to travel, a delivery carriage adapted to travel on said rails, said carriage being made in sections having articulated connections, one of said sections being adapted to be lifted off said rails and supported by a strut.

24. The combination with a press having slide rails on which a reciprocating delivery carriage is adapted to travel, a delivery carriage adapted to travel on said rails said carriage being made in sections having articulated connections, one of said sections being adapted to be lifted, and means whereby said lifted section is supported from said rails in its lifted position.

Signed at New London, in the county of New London, the State of Connecticut, on this the 27th day of July, 1923.

FRED S. ENGLISH.