May 15, 1928. 1,669,497

J. F. STEEGMULLER

RECEIVING BANK

Filed Nov. 22, 1924 2 Sheets-Sheet 1

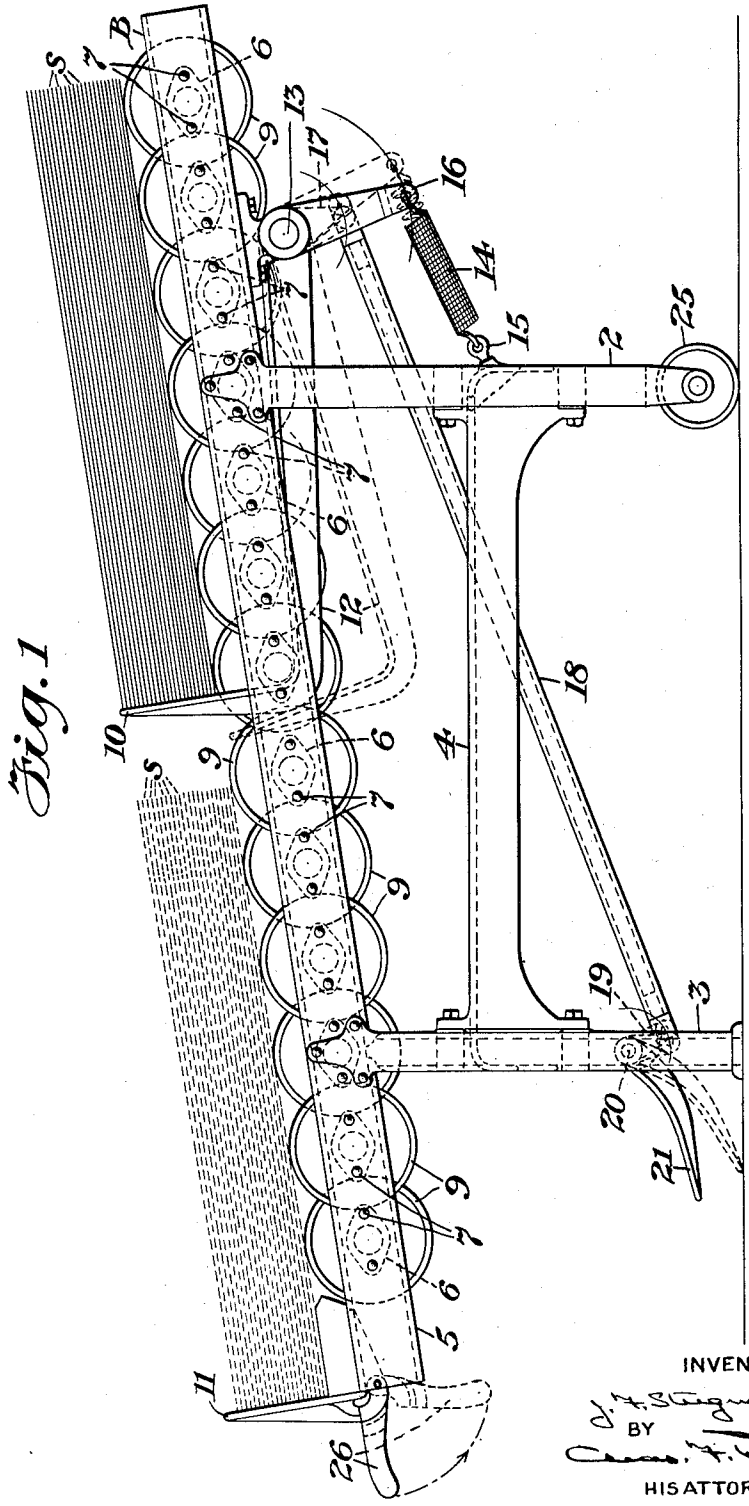


Fig. 1

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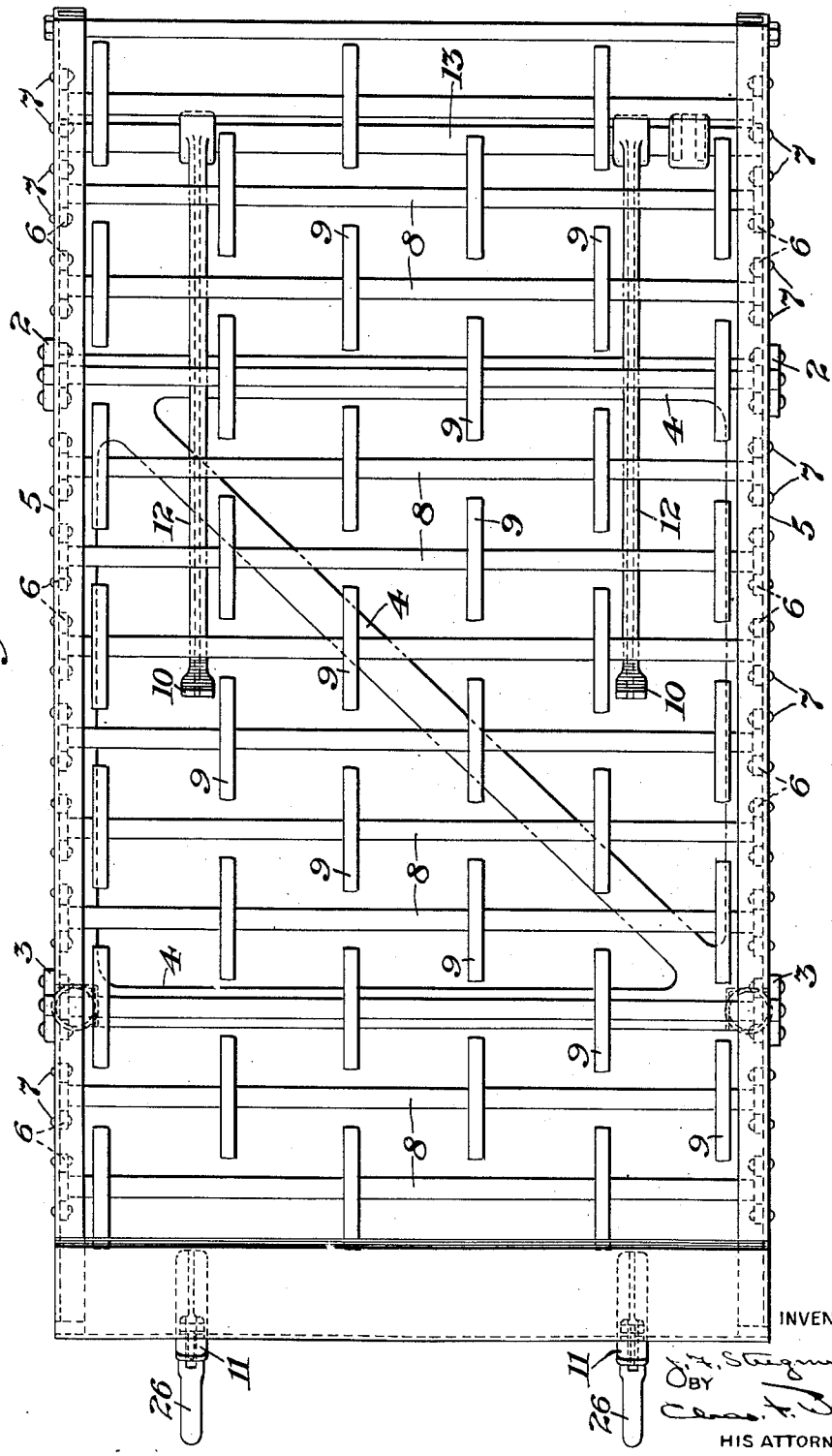
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Fig. 2



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UNITED STATES PATENT OFFICE.

JOSEPH F. STEEGMULLER, OF COSCOB, CONNECTICUT, ASSIGNOR TO M. D. KNOWLTON COMPANY, OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK.

RECEIVING BANK.

Application filed November 22, 1924. Serial No. 751,569.

The invention relates to receiving banks of the kind used in connection with machines for working on sheet stock, such as paper cutting and scoring machines, and which are adapted for receiving the cut and scored sheets as they are discharged from the machines. In the ordinary operation of a double scoring machine, the operator feeds as many sheets through the machine as the receiving bank will hold. He then ceases feeding and unloads the receiving bank, breaking the sheets as he unloads and places them on the truck by which they are carried away. This unloading operation obviously interferes with the feeding of the machine and substantially decreases its possible output. With such fact in mind, it has been the object of the present invention to provide an improved receiving bank for machines of the kind referred to by which the finished product may be handled in a way to permit the operator to feed the machine substantially continuously and thus greatly increase its possible output. This object is attained by the novel construction of receiving bank embodying my invention as hereinafter described and claimed, and as illustrated in the accompanying drawings, in which—

Fig. 1 is a side elevation of the improved receiving bank, and

Fig. 2, a top plan of the same.

To explain in detail, B indicates the work-receiving top of the bank, which is supported in an inclined position on a suitable frame, here shown as comprising front legs 2 and rear legs 3, all connected by suitable cross braces 4.

The top B comprises an open rectangular frame, the side members 5, 5 of which are in the form of channel irons, each having a series of journal blocks 6 attached to its inner wall by suitable fastening means, such as the screws or rivets 7. Journaled at their opposite ends in the blocks 6 are a series of shafts 8, each having mounted thereon a plurality of wheels 9. These shafts with their supported wheels provide a top roller surface for receiving the sheets from the machine, which surface is arranged at such an angle to the horizontal that the sheets received thereon will be caused to readily gravitate toward the lower end thereof.

The top of the bank, in accordance with the present invention, is made of a length at least double that of the sheets to be received thereon, whereby it may be divided into two sections by means of stop devices, 10 and 11, located at different points in the length thereof, the upper section being adapted to receive the sheets *s* as they are fed from the machine, and the second or lower section being adapted to receive the sheets from the upper section after a pile has accumulated thereon; the pile, indicated by full lines in Fig. 1, being released from the upper section by a lowering of the holding stop 10, preferably through a treadle connection, following which the released pile automatically gravitates downwardly onto the lower section and comes to rest against the stop 11, as shown by dotted lines in Fig. 1, where it may remain in storage until the operator or his helper has a convenient opportunity of removing the same. However, in order to obtain the full benefit of this type of bank the unloading of the same from the storage end thereof will be attended to by a helper or "stacker" whereby the operator may attend to his work of feeding sheets into the machine without interruption.

The stop device 10 for engaging and holding the sheets on the upper section of the bank may be of any suitable construction and operation. As shown, it comprises two members projecting above the top surface of the bank for engaging the sheets near their opposite ends, each member being a vertical extension of a horizontally ranging arm 12 fixed to a rock shaft 13 which is journaled in suitable bearings at the under side of the top B. A spring 14, connecting at one end with a fixed part of the frame, as at 15, and at its opposite end with an arm 16 on the shaft 13, acts to yieldingly hold the stop members 10 in their normal raised or work-engaging position. As a means for lowering said stop members to work-releasing position, a short arm 17 on the shaft 13 is connected through a rod 18 with an arm 19 on a second rock shaft 20, which latter is journaled in the lower part of the frame and provided with a treadle arm 21. Thus, when a pile of sheets has accumulated on the upper section of the bank in position resting against the stop members 10, the operator or his helper, by merely depressing the treadle 21, releases the pile by lowering the stop members from their holding position, shown by full lines, to a releas-

ing position, shown by dotted lines, whereupon the pile automatically moves downwardly on the roller surface of the bank to the lower section and against the stationary stop device 11, as shown by dotted lines in Fig. 1. After the pile has thus automatically moved from the upper or receiving section of the bank to the lower or storage section, the treadle 21 is released, whereupon the stop members 10 are automatically returned to their normal holding position by the action of the spring 14.

It will thus be obvious that the pile of sheets accumulated on the upper section of the bank may be shifted therefrom to the lower or storage section without other work than the mere depressing of the foot treadle in effecting a lowering of the holding stop 10 to releasing position, and that such shifting of the pile, by reason of the inclined roller surface on which it rests, will take place practically instantaneously following its release by the holding stop. In this way the sheet receiving section of the bank may be unloaded and restored to receiving condition without substantial interruption to the operator in his work of feeding the machine from which the sheets are delivered to the bank.

As a convenient means for moving the receiving bank about, it is here shown as provided with rollers 25 journaled at the lower ends of its front legs 2, and with pivoted handles 26 at the rear end of its top B.

While I have referred particularly to paper cutting and scoring machines in connection with the bank herein described, it will be understood that such bank may be used to advantage in connection with any machine which delivers sheet stock, such as printing presses, sheet slotters, etc.

What I claim is:

1. A receiving bank for sheet stock comprising a frame having an inclined top surface, means for arresting sheets delivered successively onto the upper section thereof and retaining them in stacked relation, means whereby said first means may be withdrawn to release the stack and permit the latter to pass onto the lower section, and means at the lower end of the surface to arrest the stack.

2. A receiving bank for sheet stock comprising a frame having an inclined top surface, stops normally extending upwardly through said top surface intermediate the ends thereof for arresting sheets delivered successively thereto and retaining said sheets in stacked relation on the upper section of said surface, means whereby said stops may be withdrawn to release the stack and permit it to pass to the lower section of said surface, and a stop at the lower end of said surface to arrest the stack.

3. A receiving bank for sheet stock comprising a transportable truck-like frame having an inclined top surface, stops normally extending upwardly from said top surface intermediate the ends thereof to arrest sheets delivered successively thereto and retain said sheets in stacked relation on the upper section of said surface, means whereby said stops may be withdrawn to release the stack and permit it to pass to the lower section of said surface, and a stop at the lower end of said surface to arrest the stack.

4. A receiving bank for sheet stock comprising a supporting framework having an inclined top surface, a shaft journaled in said frame below said surface, stop arms on said shaft having angular ends normally extending upwardly through said top surface intermediate the ends thereof to arrest sheets delivered successively thereto and retain said sheets in stacked relation on the upper section of said surface, spring means for holding said pivoted stop arms in operative position, a pedal for rotating said shaft whereby the stop arms may be withdrawn to release the stack and permit it to pass onto the lower section of said surface, and a stop at the lower end of said surface to arrest the stack.

In testimony whereof I affix my signature.

JOSEPH F. STEEGMULLER.