

No. 612,248.

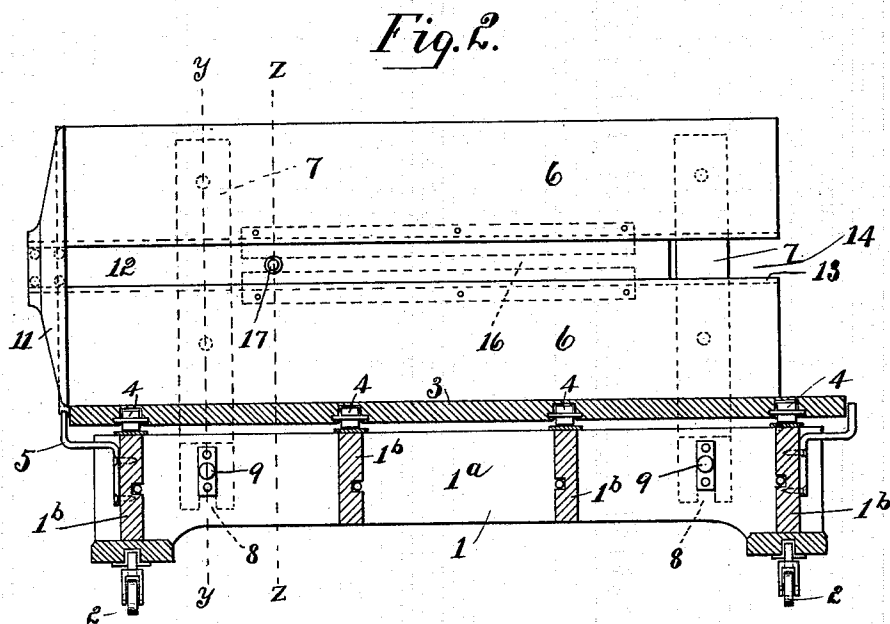
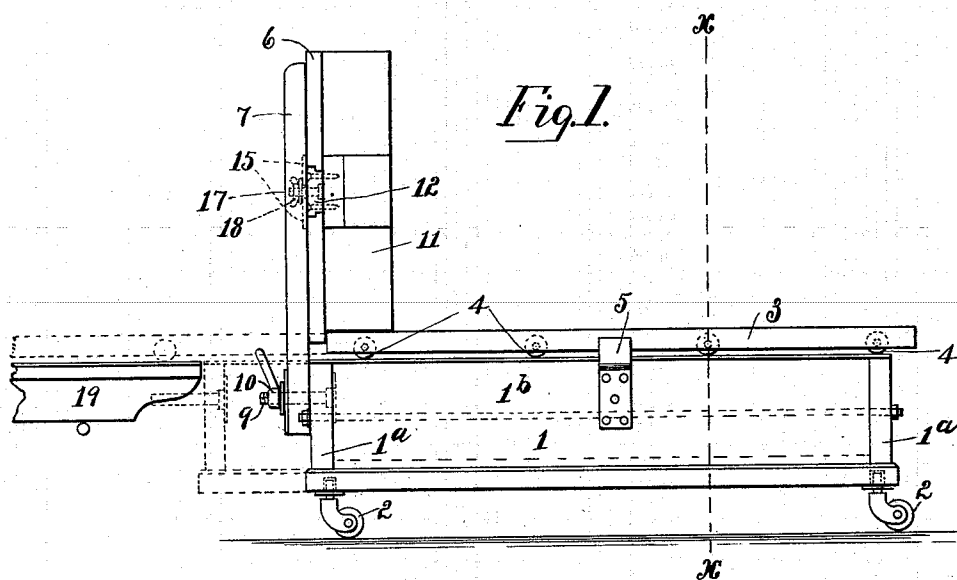
Patented Oct. 11, 1898.

H. K. KING.
SHEET PILING DEVICE.

(Application filed May 1, 1897.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses.

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(No Model.)

2 Sheets—Sheet 2.

Fig. 3.

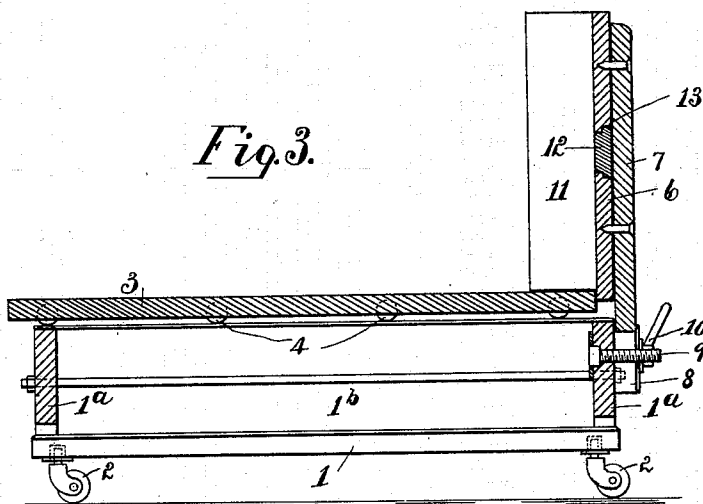


Fig. 4.

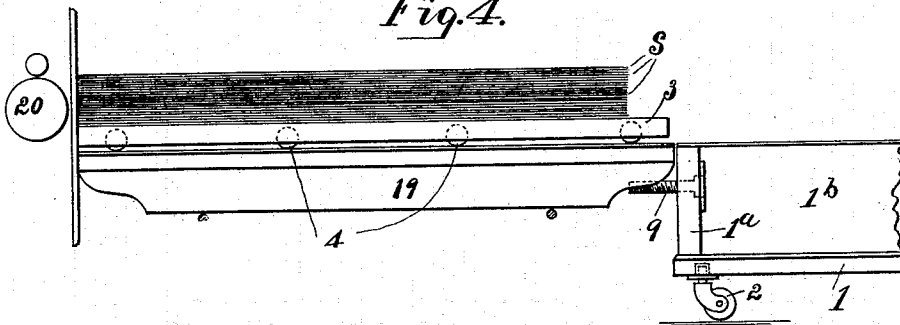
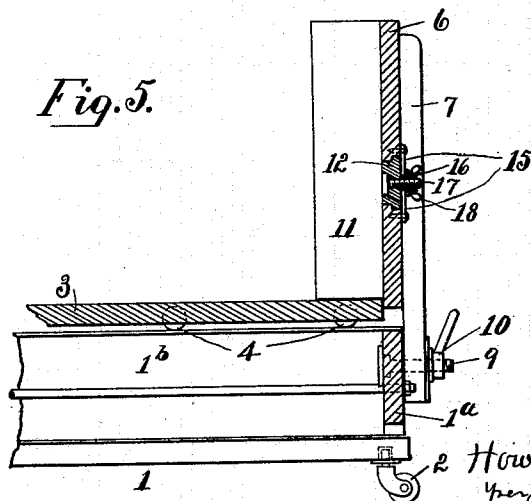


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

HOWARD K. KING, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE CHAMBERS BROTHERS COMPANY, OF SAME PLACE.

SHEET-PILING DEVICE.

SPECIFICATION forming part of Letters Patent No. 612,248, dated October 11, 1898.

Application filed May 1, 1897. Serial No. 634,725. (No model.)

To all whom it may concern:

Be it known that I, HOWARD K. KING, a citizen of the United States, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Sheet-Piling Devices or Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, of which—

Figure 1, Sheet 1, is a side elevation, also showing the rear end portion of the feed-board of a feeding mechanism of a folding-machine; Fig. 2, a vertical section on line *x x*, Fig. 1; Fig. 3, Sheet 2, a full section as on line *y y*, Fig. 2; Fig. 4, a side elevation of the front end of the truck and feeding mechanism board, showing the truck-table with sheets piled thereon moved over from the truck onto the feed-board, the head and side or sheet-squaring boards having been detached. Fig. 5 is a section, partly broken away, on line *z z*, Fig. 2.

This invention has for its object to provide a convenient device, which I term a "piling" device or machine, upon which sheets of paper of any size, as they are taken from a printing-press, may be piled and "squared" and then transported into suitable position for being fed into a folding-machine.

To this end the invention consists of the combination of a truck mounted upon rollers or casters, a table supported by or on the top of the truck, which table is adapted to be rolled or slid longitudinally upon the truck and from the latter onto the feed-board for the folding-machine, together with a vertical transverse board at one end and a second vertical board at or near the same end of and at right angles to the first board, which boards are detachably connected to the said table, the last-mentioned board being preferably adjustable longitudinally with relation to the first board, to which it is connected, all substantially as hereinafter described, and pointed out in the claims, the construction and arrangement of the parts being such, as hereinafter described, that when the front end and one side of the sheets, as taken from the printing-press and laid upon the table, are abutted against the two boards the end and

side of each sheet so placed will register with those of the underlying sheets—that is to say, the sheets being squared and the truck with the pile of sheets thereon being then rolled over against and close to the feed-board for the folding-machine, (the top of the truck being in the same plane with that of the feed-board,) the said vertical boards being removed, the truck-table may be then rolled or slid over onto the said feed-board, thus bringing the pile of sheets into suitable juxtaposition to the feed-rolls of the folding-machine to be fed between the same.

Referring now to the accompanying drawings, 1 marks the truck, which in the present instance is a framework made up of end bars 1^a and longitudinal cross-bars 1^b and is provided with rollers or casters 2 at each lower corner, upon which rollers the truck is adapted to run.

3 is a horizontal table, whose length and width are about equal to that of the truck. It has a series of rollers 4 journaled on its under side and resting, respectively, upon the tops of the longitudinal cross-bars 1^b, upon which the table is adapted to be run, as hereinafter described.

5, Figs. 1 and 2, are brackets secured to the outer bars or sides of the truck and projecting adjacent to and above the side edge or a part of the edge of the table 3 for the purpose of guiding the latter, and thus preventing the rollers from running off the trackways formed by the tops of the bars 1^b.

6 is a transverse vertical board, hereinafter termed the "headboard," at and extending above one end—the forward end—of the table. It is secured to two arms 7, the lower end of each of which extends below the table and is provided with a vertical slot 8, through which extends a bolt 9, that is connected to the front end bar of the truck-frame. The projecting end of the bolt is screw-threaded and has thereon a nut 10. Thus the board may be readily fastened in place and detached when required.

11 is a second vertical board, hereinafter termed the "side board," of any suitable width, at the forward end of the table and of the headboard, its end resting against the latter at right angles to it and to the table, the

junction of the two boards forming a square corner perpendicular to the top of the table. It is desirable that this side board 11 shall be adjustable longitudinally with relation to the headboard, so as to suit the particular width of the sheets to be piled upon the table. To this end I provide the said board 11 with a horizontally-extending tongue 12, that is entered into a slot 13 in the headboard 6. In the present instance, as seen, this slot is formed by making the headboard in two parts, with a slot or interval 14 between them. In the back of the latter board and along a part of the edge of the slot 14 are fastened plates 15, with a space between their inner projecting edges or sides constituting a longitudinal slot 16. Through this slot extends a threaded bolt 17, that is secured to the tongue 12, and on the projecting end of the bolt is a thumb-nut 18. By loosening this nut the tongue, and consequently the side board 11, may be shifted to the required position and then held there by tightening the nut.

It will be observed that inasmuch as the side board is carried and supported by the headboard the former may be adjusted, as described, by simply loosening the nut on the bolt 17, there being no other securing devices to be manipulated.

Having thus described the construction of my invention, I shall now proceed to explain its operation and mode of using the same, which are as follows: The truck is wheeled to position with relation to the printing-press for the sheets coming from the latter to be conveniently taken and piled upon the table 3. The sheets are then placed *seriatim* upon the table 3, one side thereof being abutted against the side board 11 and the end against the headboard 6. Thus the front ends and one side of the sheets of the pile will respectively register. When a sufficient number of the sheets S has been thus piled upon the table, the truck is wheeled to a position adjacent to the end of the feed-board for the folding-machine, as shown in Fig. 1, in which 19 marks the feed-board, which is also seen in Fig. 4. The nuts 10, which maintain the headboard to the truck, as previously described, are then loosened, and the said board, with its connected side board 11, is detached from the truck. The latter is now moved up against the end of the feed-board 19, (the top of which and of the truck being on the same horizontal plane,) and then the table, with its pile of sheets S, is rolled off the truck onto the feed-board, as shown in Fig. 4, until the front end of the pile of sheets is in suitable juxtaposition to the usual feeding-rolls 20, Fig. 4, for the folding-machine. The pile of sheets having been fed into the latter, the table is then rolled back upon the truck, the headboard and adjuncts are replaced, and the apparatus is ready to be returned to the printing-press for another supply of the sheets.

While it is preferable to mount the table upon rollers, as shown, it will be obvious that

the rollers may be dispensed with and the table be capable of sliding in or upon suitable guideways instead.

I remark that although not recommended to be done the head and side boards may be secured to the table instead of to the truck.

I do not limit myself to the particular construction shown, as the same may be considerably varied without departing from the principle of the invention. It is, however, essential to the proper use or operation of the apparatus that the headboard shall be detachably secured to either the truck or the table.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a sheet-piling device or machine, the combination of a truck, a table supported to move upon said truck, side guides on said truck for maintaining said table in position laterally thereon, a vertical detachable headboard and a vertical side board supported by and adjustably connected to the headboard, substantially as specified.

2. In a sheet-piling device or machine, the combination of a truck, a table supported to move upon said truck, side guides for maintaining the table in lateral position upon the truck, a vertical slotted detachable headboard, a side board having a horizontally-extending arm or tongue which slidably engages the slot of the headboard, and means for securing said arm or tongue in different positions in the said slot, substantially as specified.

3. In a sheet-piling device, the combination of the truck, the movable table supported by and provided with wheels adapted to run upon the truck, side guides for maintaining the table in position laterally; the vertical headboard, means for securing the same detachably to the truck, and the vertical side board connected to and adapted to slide longitudinally with relation to the said board, said truck, table and boards being arranged with relation to each other, substantially as shown and for the purpose set forth.

4. In a sheet-piling device or machine, the combination of a truck, a movable table supported on said truck, side guides for maintaining the table in position laterally, a vertical headboard means for detachably securing the same to the truck, and the vertical side board connected to and adapted to slide longitudinally with reference to said headboard, said truck, table and boards being arranged with relation to each other, substantially as described.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

HOWARD K. KING.

Witnesses:

WALTER C. PUSEY,
JOSHUA PUSEY.