Jan. 7, 1936. E. HORNBECK ET AL 2,027,341

PAPER STACKER

Filed June 21, 1935

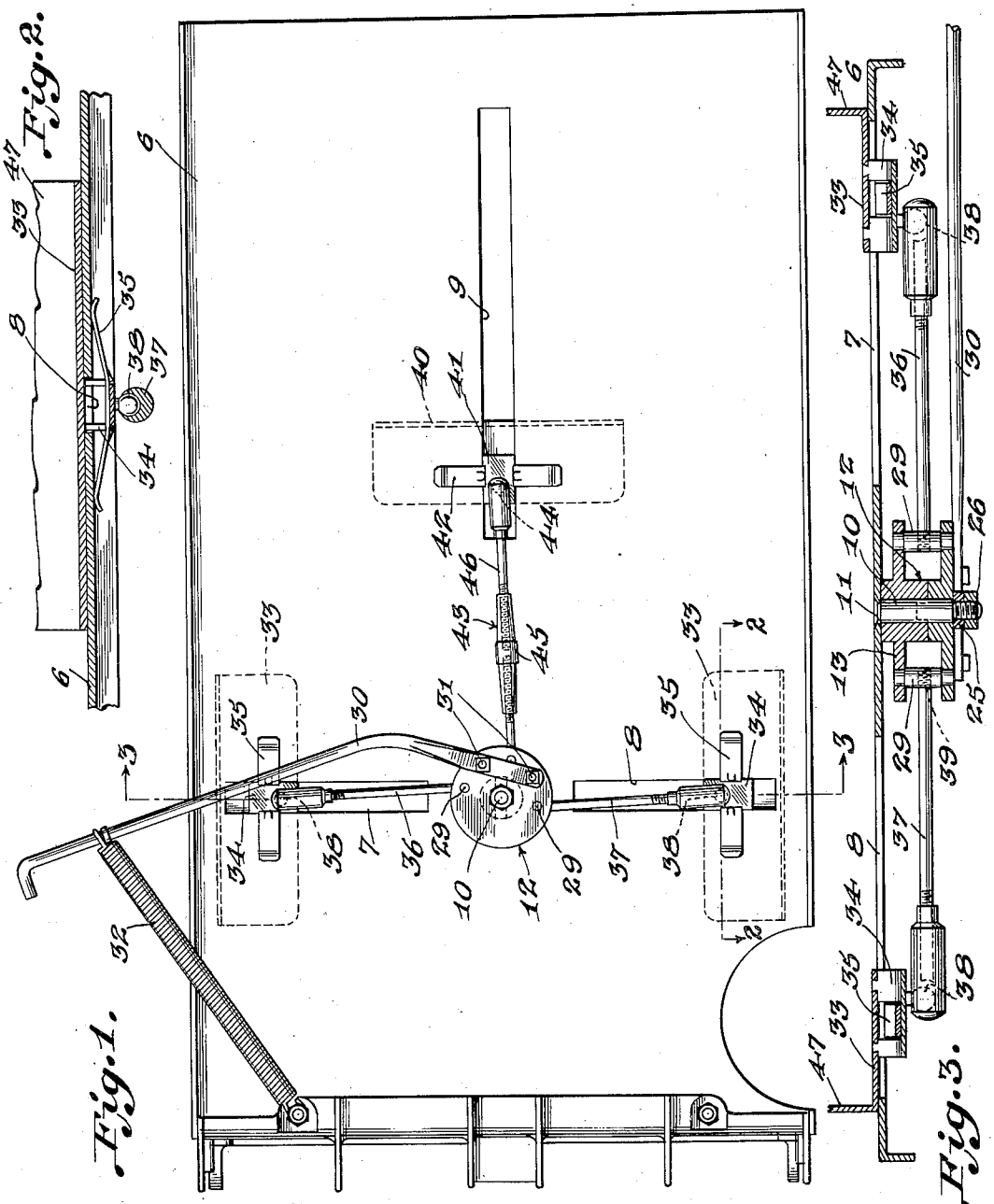


Fig. 1.

Fig. 2.

Fig. 3.

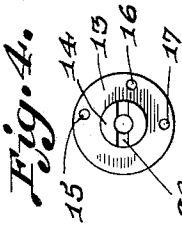


Fig. 4.

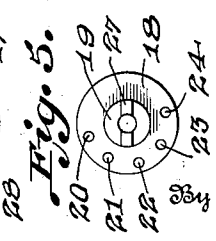


Fig. 5.

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Patented Jan. 7, 1936 2,027,341

UNITED STATES PATENT OFFICE

2,027,341

PAPER STACKER

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Application June 21, 1935, Serial No. 27,786

4 Claims. (Cl. 271—89)

This invention relates to improvements in paper stackers and more especially to a novel stacker for use on mimeograph or similar machines.

The primary object of the invention is to provide improved means for stacking sheets of paper as they come from a mimeograph machine or the like, thereby saving the handling of the paper in stacking by hand, and also saving time for drying.

With the foregoing object outlined and with other objects in view which will appear as the description proceeds, the invention consists in the novel features hereinafter described in detail and more especially pointed out in the appended claims.

In the accompanying drawing:

Fig. 1 is a bottom plan view of our improved stacker.

Fig. 2 is a vertical longitudinal sectional view of a detail taken on the line 2—2 of Fig. 1.

Fig. 3 is a transverse vertical sectional view on the line 3—3 of Fig. 1.

Fig. 4 is a plan view of the top hub plate of the mechanism.

Fig. 5 is a similar view of the bottom hub plate.

Referring to the drawing, 6 designates a plate or platform provided with a pair of transverse slots 7 and 8, and a longitudinal slot 9.

A stud or axle 10 has its head 11 fixed to the plate at a point mid-way between the slots 7 and 8 and this stud depends from the plate and forms a fulcrum for a hub or wheel 12. The hub is made up of an upper disc 13 having a central boss 14 and apertures 15, 16 and 17. The lower disc 18 is also provided with a central boss 19 and with apertures 20, 21, 22, 23, and 24.

The two plates are held on the stud by any suitable means such as a main nut 25 and a lock nut 26, and to prevent turning movement of one member relative to the other, the boss of the lower disc has a diametrical groove 27 to receive a diametrical lug 28 depending from the upper member.

The apertures 15, 16, 17, 20, 22, and 24, form bearings for the ends of short vertical shafts 29 that oscillate between the discs, and the hub formed by the discs is oscillated by any suitable means such as an arm 30 fixed to the lower disc by bolts 31 which pass through the apertures 21 and 23.

It will be noted that the arm or lever 30 is securely fastened to the oscillating wheel and projects beyond the tray so that it may be connected with the slip sheeter drive or other movable members of a mimeograph machine or the like. A coil spring 32 has one of its ends fixed to the arm and its other end fixed to the underside of the plate 6 for the purpose of yieldingly holding the parts in a normal position.

Transversely movable L-shaped shoes 33 have depending guide members 34 which travel in the slots 7 and 8, and for the purpose of steadying this moving, each guide is preferably provided with a bow-shaped spring 35 that extends therethrough and engages the bottom surface of the plate.

Links 36 and 37 have elongated adjustable nuts at their outer ends connected to the shoe guides by means of ball and socket joints 38, and the inner ends of the links are secured to a pair of shafts 29 by any suitable means such as threaded joints 39. This permits lateral adjustment of the shoes 33 relatively to the axle 10.

A third shoe 40 of L-shape has a guide 41 travelling in the longitudinal slot 9 and a bow spring 42 also cooperates with the shoe to steady its movement. The guide of the shoe 40 is connected to the oscillating wheel by an extensible link 43 having one of its ends connected to one of the shafts 29 and its other end connected to the shoe guide by a ball and socket joint 44. A conventional turn buckle 45 may form part of the link 43 to permit lengthening and shortening of the same, and as the slot 9 is relatively long it will be understood that if a longer section 46 of the link is substituted for the one shown, the stacker can accommodate sheets of much greater length.

In operation, it will be understood that the lever 30 is constantly moved to and fro and this causes the wheel 12 to oscillate, with the result that the shoes 33 and 40 are moved toward and away from one another. Of course, the sheets from the mimeograph machine or the like, will fall upon the upper surface of the plate 6 and obviously the upstanding walls 47 of the shoes will engage edges of the sheets and will act to place the sheets in a neat pile.

From the foregoing it is believed that the construction, operation and advantages of our improved stacker may be readily understood and it is evident that changes may be made in the details disclosed without departing from the spirit of the invention as expressed in the claims.

What we claim and desire to secure by Letters Patent is:

1. A paper stacker comprising a plate provided with guide ways, an oscillating wheel arranged beneath the plate and carrying oscillating shafts, shoes having portions projecting above said plate

and depending guides guided by said guide ways, links having their inner ends screw threaded to said shafts, universal joints connecting the outer ends of the links to said guides, and means for oscillating said wheel.

2. A paper stacker comprising a plate provided with guide ways, an oscillating wheel arranged beneath the plate and carrying oscillating shafts, shoes having portions projecting above said plate and depending guides guided by said guide ways, links having their inner ends screw threaded to said shafts, universal joints connecting the outer ends of the links to said guides, means for oscillating said wheel, and bow springs extending through said guides and bearing against the lower surface of the plate for steadying the movement of the shoes.

3. A paper stacker comprising a plate provided with guide ways, an oscillating wheel arranged beneath the plate and carrying oscillating shafts, shoes having portions projecting above said plate and depending guides guided by said guide ways, links having their inner ends connected to said shafts, universal joints connecting the outer ends of the links to said guides, and means for oscillating said wheel, said wheel consisting of upper and lower apertured discs to accommodate the ends of the oscillating shafts, one disc being provided with a projecting lug and the other with a groove to receive said lug to prevent relative movement of the discs.

4. A paper stacker comprising a plate provided with aligned transverse slots and a longitudinal slot, a stud fastened to the plate and depending from the plate at a point intermediate said transverse slots, a wheel rotatably and detachably mounted on said stud, said wheel consisting of upper and lower discs provided with complementary bosses interlocked to each other to prevent relative movement of the discs, said discs being provided with apertures, short oscillating shafts having their ends journaled in said apertures, stacking shoes slidably mounted on the upper surface of the plate, guides secured to the shoes and depending through said slots, bow springs extending through the guides and engaging the undersurface of the plate for steadying the movement of the shoes, and links having their inner ends secured to said shafts and their outer ends pivotally and adjustably connected to said shoes.

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