S. FELDMAN.

APPARATUS FOR TAKING OFF SINGLE SHEETS FROM PILES.

APPLICATION FILED SEPT. 5, 1918.

1,291,455. Patented Jan. 14, 1919.

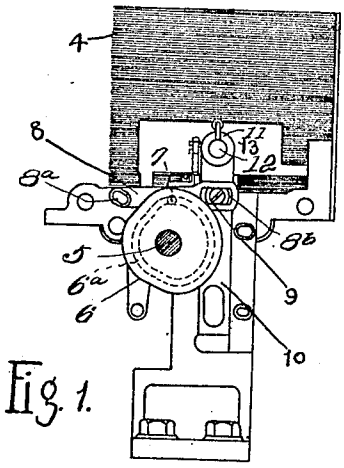


Fig. 1.

Fig. 2

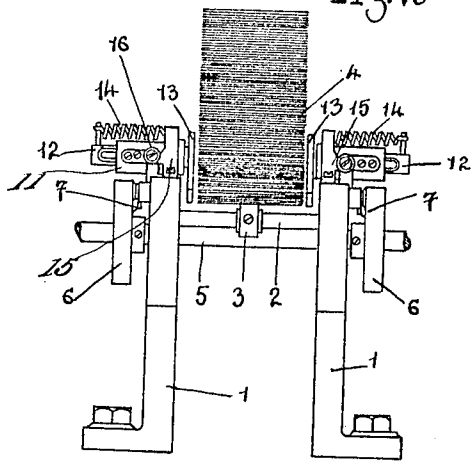
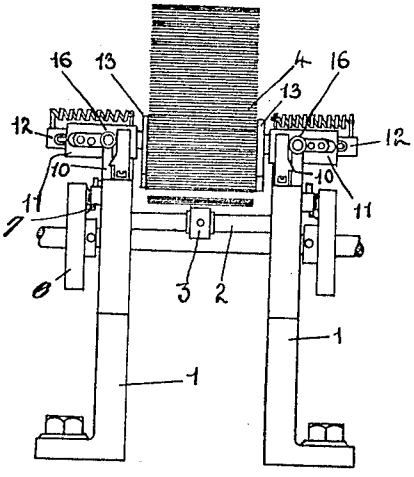


Fig. 3.



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SHIMON FELDMAN, OF PETROGRAD, RUSSIA, ASSIGNOR TO J. M. AIVAZ SOCIETE PAR ACTION POUR CONSTRUCTION DE MACHINES, OF PETROGRAD, RUSSIA.

APPARATUS FOR TAKING OFF SINGLE SHEETS FROM PILES.

1,291,455. Specification of Letters Patent. **Patented Jan. 14, 1919.**

Application filed September 5, 1918. Serial No. 252,806.

To all whom it may concern:

Be it known that I, SHIMON FELDMAN, a citizen of Russia, and residing at Petrograd, Russia, have invented certain new and useful Improvements in Apparatus for Taking Off Single Sheets from Piles, of which the following is a specification.

In the separation of single sheets from a pile, many defects occur because the sheet to be separated is subjected to the pressure of the whole pile. Besides this, while the separation proceeds, the weight of the pile varies and the action of the apparatus thereby becomes variable.

This drawback is removed by such an arrangement as hereinafter described, by means of which a part of the pile is lifted so that the sheet to be separated has only a certain small part of the pile resting upon it.

The accompanying drawings show one mode of carrying the invention into effect in which:—

Figure 1 shows an end view of the apparatus.

Fig. 2 is a front view showing the entire mass of sheets lying on the sheet to be separated.

Fig. 3 is a similar view showing a part of the pile lifted.

In the drawings the columns 1 support the shaft 2 having the roller 3 on which the pile of sheets 4 bears, (Fig. 2). In the position shown in Fig. 2 the pile rests on this roller 3 with its whole weight. The columns 1 support a rotatable shaft 5 provided at its ends with disks 6 having cam grooves 6^a in which are arranged rollers 7 carried by levers 8, which are pivoted at 8^a to the sides of the columns. As the disks 6 rotate, the rollers 7 will travel in the grooves 6^a and cause the oscillation of the levers 8 about their pivots. The levers are slotted at 8^b to receive projections 9 carried by vertically sliding shoes 10, which are mounted in the column. Each shoe has at its top a horizontal sleeve 11 in which rods 12 are slidably mounted, and each rod is provided with a plate 13. The springs 14 have a tendency to normally press these plates 13 toward the pile.

In the position shown in Fig. 2, in which the shoes are in their lowest position, the rollers 16 mounted on the rods 12 bear against cams carried by the posts 15 and cause the plates 13 of the rods 12 to move outwardly, thus permitting the pile to freely drop on the roller 3. As the shoes 10 rise to their highest position the rollers 16 rolling off the cams on the posts 15 permit the springs 14 to move the plates 13 inward or toward each other, and said plates clamping the pile, lift same, leaving on the roller 3 only a small quantity of sheets. When the pile is thus lifted the separation of the lowest sheet may be effected, and thereafter by the further rotation of the cam disk 6 the pile 4, relieved from the clamping plates 13, drops to its original place.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. Apparatus for the purpose described, comprising in combination, a pile of sheets of paper, roller feeding means beneath the lowest sheet which normally supports the weight of the pile, a plate at each side of the pile, and means whereby the plates clamp the pile between them and lift the greater part of it when the lowest sheet is being fed.

2. Apparatus for the purpose described, comprising in combination, a pile of sheets of paper, roller means for feeding the lowest sheet and which normally support the whole weight of the pile, a plate at each side of the pile, automatic means to positively move the plates inward to engage the pile and lift the greater part thereof when feeding is to occur, and means to withdraw the plates after feeding has occurred.

3. An apparatus for the purpose described comprising in combination a pile of sheets, means for feeding the lowest sheet and which normally supports the weight of the pile, clamping means at opposite sides of the pile, and means whereby the clamping means clamp the pile and lift the greater part of it when the lowest sheet is being fed.

4. An apparatus for the purpose described comprising in combination a pile of sheets, means for feeding the lowest sheet and which normally supports the whole weight of the pile, a plate at each side of the pile,

rods supporting said plates, vertically movable bearings supporting said rods, resilient means for moving said plates toward each other to clamp the pile, and means for moving said plates apart when said bearings move downwardly.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SHIMON FELDMAN.

Witnesses:
BORIS MOFSIK,
MOSES SUISARANKA.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."