E. JAGENBERG.

PAPER FEEDING MACHINE.

APPLICATION FILED JULY 30, 1913.

1,097,641. Patented May 26, 1914.

Fig. 1.

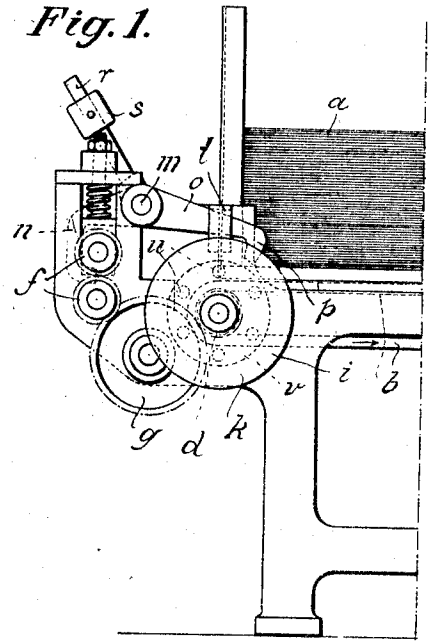
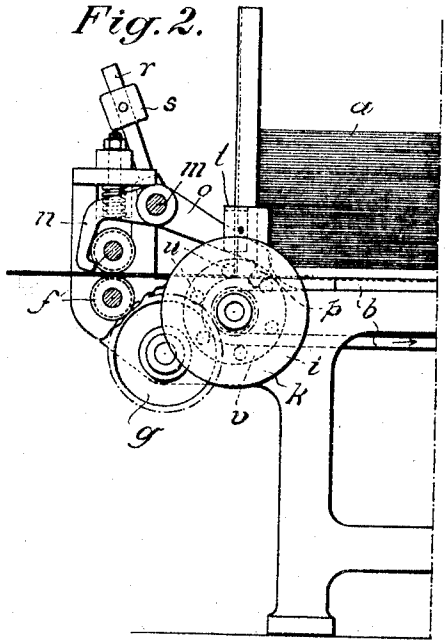


Fig. 2.



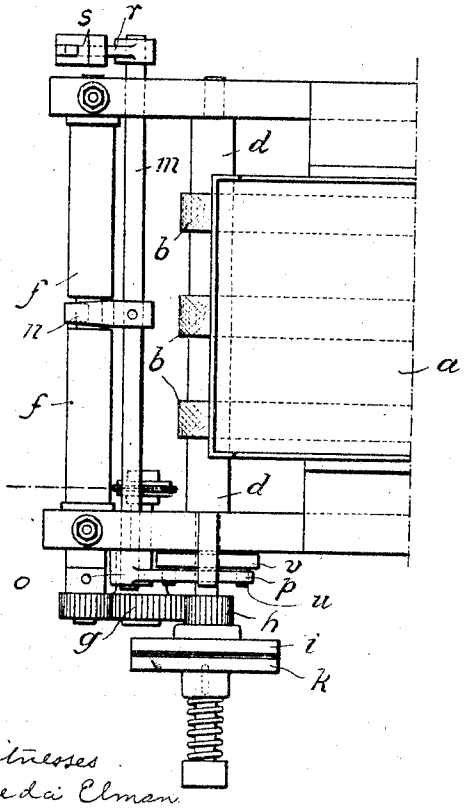


Fig. 3.

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UNITED STATES PATENT OFFICE.

EMIL JAGENBERG, OF DUSSELDORF, GERMANY.

PAPER-FEEDING MACHINE.

1,097,641. Specification of Letters Patent. Patented May 26, 1914.

Application filed July 30, 1913. Serial No. 781,908.

To all whom it may concern:

Be it known that I, EMIL JAGENBERG, a subject of the German Emperor, and residing at 107 Himmelgeisterstrasse, Dusseldorf, Germany, have invented certain new and useful Improvements in Paper-Feeding Machines, of which the following is a specification.

The present invention relates to an arrangement for drawing off and displacing the single sheets on piles by means of belt conveyers traveling beneath the said piles and drawing away from the same the lowermost sheet and conveying it to a pair of feed rollers.

According to the present invention a friction clutch is provided in such an arrangement in the driving gear between the feed rollers and the roller of the belt conveyer, which clutch is locked by means of a finger arranged next to the feed rollers on the arrival of the sheet drawn off, so that the belt conveyer is stopped, although the driving gear continues to run, and no further sheet will be drawn off, until the said lock is disengaged.

In the accompanying drawing Figures 1 and 2 the invention is exemplified in side elevations, whereas Fig. 3 is a plan of the same.

The pile of sheets *a* rests on the taut belt conveyers *b*, which are driven by means of the rollers *d*. In the same level with these belts the pair of feed rollers *f* is journaled, which is driven by means of the gear wheel *g*. This gear wheel *g* also engages with the gear wheel *h*, which is loose on the shaft of the roller *d*, but is rigidly secured to the one member *i* of a friction clutch. This member of the friction clutch can revolve loose on the shaft of roller *d*, while the other member *k* of the clutch is keyed to this shaft. Parallel to the rollers *f* a shaft *m* is journaled, which carries an arm *n*, which projects like a finger into notches in the two rollers. At the free end of shaft *m* is secured a lever *o*, which has a hooked end *p* and a bar *r* extending obliquely upward, on which a weight *s* is fitted. This lever *p*, the highest position of which is limited by a stop *t*, engages during its descent between the pins *u*, which are fitted in a circle on the disk *v* secured to the shaft of the rollers *d*. When there is no sheet between the rollers the weight *s* will press the finger *n* into the notches of the rollers *f* and lift the hook *p* from the gaps between the pins *u* (Fig. 1). The drive by means of the gears *g* and *h*, by which also the one member of the clutch *i* is revolved, will then also revolve the clutch member *k* and the roller *d*. The conveyer belts will thus be advanced, so that the lowermost sheet of the pile *a* is advanced toward the feed rollers *f*. When, then, this sheet enters between the rollers *f*, its front edge strikes against the finger *n* and moves it, so that the weight is lifted and the hook *p* is lowered between the pins *u* (Fig. 2). The rotation of the disk *v* is therewith stopped, so that the two clutch members now glide on each other and the roller *d* with the conveyer belts does not move. As soon as the sheet has passed through between the rollers *f*, the finger *n* again drops down and the hook *p* is raised, so that now the friction between the clutch members will again cause the roller *d* to revolve and a fresh sheet to be advanced.

The pile is displaceably arranged in the direction of the conveyer belts on the top of the machine. Its distance and the interval between the removal of two sheets may therefore be readily varied at will. The finger *n* may also be arranged on the other side of the feed rollers, where it will be lifted in the same manner. It is also possible to arrange the weight in such a manner, that on the finger *n* being raised, it is lifted beyond its highest position, so that it then forces down the hook *p*. In this case the latter is again released by means of a lever or the like operated by the device to which the sheet is fed, and the weight is reversed.

I claim:

A paper feeding machine comprising a belt conveyer adapted to engage the bottom sheet of a sheet pile, a driving roller for said conveyer, a first clutch member and a pin disk fast on the driving roller-shaft, a notched feed roller arranged in advance of the belt conveyer, a second clutch member loose on the driving roller shaft and inter-

geared with said feed roller, an oscillable arm adapted to engage the feed roller-notch and to be engaged by the bottom sheet, and an overbalanced lever operatively connected to said arm, and adapted to engage the pin disk.

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

EMIL JAGENBERG. [L. S.]

Witnesses:
HELEN NUFER,
ALBERT NUFER.

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