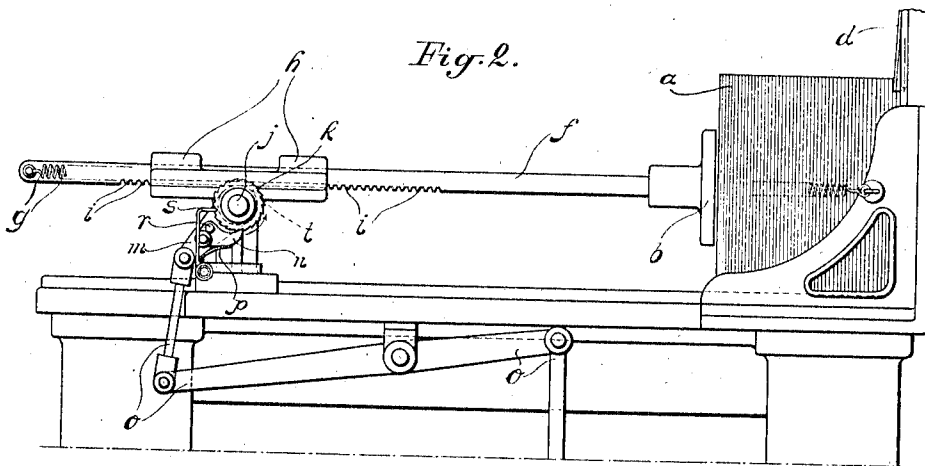
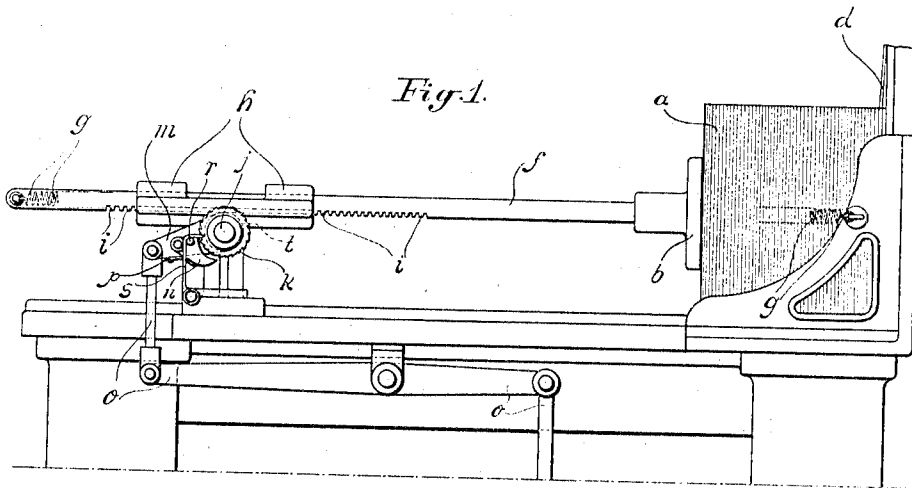


E. JAGENBERG.
PAPER FEEDING APPARATUS.
APPLICATION FILED JULY 30, 1913.

1,107,795.

Patented Aug. 18, 1914.



Witnesses:
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UNITED STATES PATENT OFFICE.

EMIL JAGENBERG, OF DUSSELDORF, GERMANY.

PAPER-FEEDING APPARATUS.

1,107,795.

Specification of Letters Patent.

Patented Aug. 18, 1914

Application filed July 30, 1913. Serial No. 781,907.

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 Apparatus, of which the following is a specification.

This invention relates to a paper feeding apparatus of novel construction for advancing card board sheets in box making machines and similar devices.

The apparatus is adapted to operate more particularly on a pile of vertically disposed sheets, and is so constituted that while the foremost sheet is being pushed down by means of a vertically reciprocable slide, a pressure ram acting against the pile from the rear is automatically withdrawn, so that the sheets are somewhat loosened up to facilitate the operation of the slide.

The present invention is exemplified in the accompanying drawing.

Figures 1 and 2 illustrate two different operative positions of the arrangement in side elevation.

The pile of vertically disposed sheets *a* contained in a stationary magazine is advanced by the ram *b* acting against the rearmost sheet to push the sheets against the vertically reciprocable slide *d* which will carry off the foremost sheet from the pile by means of a nose or projection formed on said slide that engages the upper edge of said foremost sheet. The rod *f*, to which the ram *b* is attached, is pressed by means of springs *g* or similarly acting means against the pile of sheets. The rod moves in a guide *h* and is provided with teeth *i*, in which a pinion *t* fitted to the said guide engages. On the shaft *j* of this pinion is fitted a ratchet wheel *k* and a swiveling lever *m*, the said lever carrying a pawl *n* engaging in the teeth of the wheel *k*. This lever *m* is coupled by means of rods and levers *o* with the driving shaft, so that it can be operated at the required moment and in the required direction. The pawl is pressed by means of a spring *p* against the wheel *k*, whereas at

the highest position of the lever a pin on said pawl will abut against a stop *s*, which will lift the pawl. This stop is made in form of a reversible hook. The springs *g* press against the ram *b* and the pile of sheets, so that the foremost sheet is seized by the slide *d*. As soon as the slide *d* which is operated by the driving shaft reaches the upper edge of the foremost sheet, for removing it from the pile, the levers *o* pull down the lever *m*. In consequence thereof the pawl turns the ratchet wheel and the gear wheel and the ram *b* is withdrawn a little by means of the rack, so that the pressure on the pile is relieved. The slide may now easily remove the foremost sheet. As soon as the slide rises again, the lever *m* is again lifted so that the pawl is disengaged and the springs *g* can again force the ram forward. With the decrease of the height of the pile the rack gradually advances. This the pawl device will allow.

I claim:

1. A paper feeding apparatus comprising a fixed magazine, adapted to contain a stack of vertically disposed sheets, a vertically movable slide having a projection adapted to engage the upper edge of the foremost sheet, a spring-influenced ram adapted to engage the face of the rearmost sheet, and means for retracting the ram during the descent of the slide.

2. A paper feeding apparatus for vertically disposed paper sheets, comprising a vertically reciprocable slide adapted to engage the foremost sheet, a spring-influenced ram adapted to engage the rearmost sheet, a rack carrying the ram, a pinion engaging the rack, a ratchet wheel operatively connected to the pinion, a driven lever, and a pawl operatively connected to said lever and adapted to engage the ratchet wheel.

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

EMIL JAGENBERG.

Witnesses:

HELEN NUFER,
ALBERT NUFER.