

F. BANNING & F. KUNKEL.
RAISING FELT PRESS FOR PAPER MACHINES.
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Patented May 2, 1911.

2 SHEETS—SHEET 1.

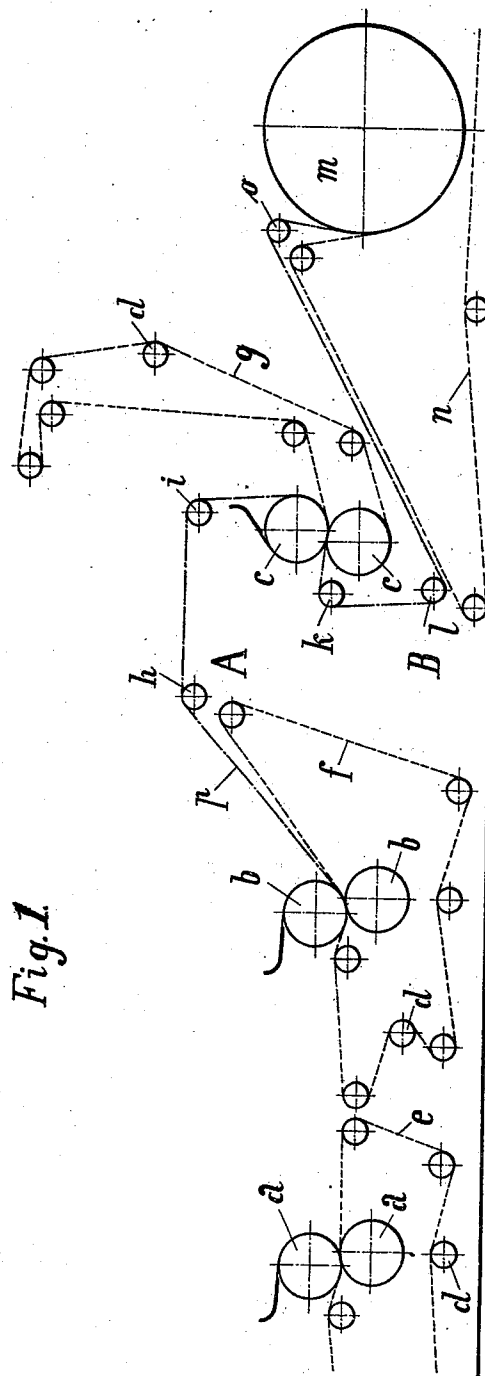


Fig. 1.

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2 SHEETS--SHEET 2.

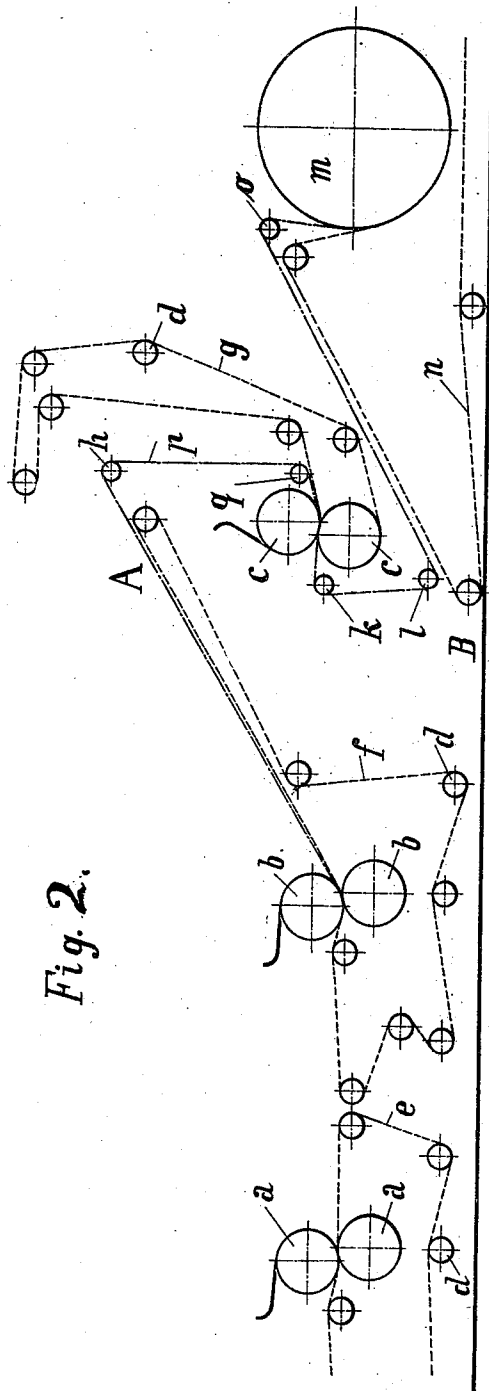


Fig. 2.

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UNITED STATES PATENT OFFICE.

FELIX BANNING AND FRIEDRICH KUNKEL, OF DÜREN-ON-THE-RHINE, GERMANY.

RAISING FELT-PRESS FOR PAPER-MACHINES.

991,126.

Specification of Letters Patent.

Patented May 2, 1911.

Application filed January 18, 1907. Serial No. 352,999.

To all whom it may concern:

Be it known that we, FELIX BANNING and FRIEDRICH KUNKEL, both citizens of the German Empire, residing at Düren-on-the-Rhine, Germany, have invented new and useful Improvements in Raising Felt-Presses for Paper-Machines, of which the following is a specification.

The raising of the wet paper of the so-called turning or raising felt press of the paper-machine offers considerable difficulties and is the cause of a very great deal of waste.

Figure 1 of the drawing shows the improved arrangement of the laying felt press *a a* and *b b* and of the raising felt press of paper-machines with several wet-presses, in a diagrammatic view. Fig. 2 is a like view showing a modification.

Paper is fed into the press, as is well known, by means of endless transporting felt cloths *e, f* and *g* running over guide-rollers *d*. These felts feed the paper into the presses. The laying felt *f* of the second press *b* is so arranged that it moves the paper *p* up to the level of the guide-rollers *h* and *i* intended for the guiding. The machine minder takes off at A the arriving paper and passes it over the guide rollers *h* and *i*, and from there downward into the press *c*. With this mode of guiding the paper it follows the way, from above to below, which, on account of its own weight, it is forced to follow, so that it is safe against tearing. In this way the attendance of the turning is also greatly facilitated. The difficulties, which moreover the taking off of the paper from the roller *c* offers, are here entirely removed, for the machine minder has free access to this roller at the place marked with B, and can effect without any difficulties the guiding over the guide rollers *h* and *i*.

For facilitating the forward movement of the paper to the driving apparatus *m*, the drying felt *n* is moved forward in the usual manner, until it is under the raising felt press *c*. The paper which has passed around the rollers *h* and *i* is, on being guided upward, seized by the drying felt and brought

in front of the guide-roller *o*, so that the machine minder can easily effect by hand the transmission upon the roller.

In the form of construction illustrated in Fig. 2 the transporting felt *f* of the laying press *b* is moved forward until it is above the raising press *c*, so that the guide-roller *h* is vertically above the raising press. The arriving paper *p* hangs down from the guide-roller *h* and moves in consequence of its own weight vertically downward. Arrived at the lower end, the paper passes upon a guide roller *g* arranged close above the felt *g* and which deposits the paper upon this felt, whereupon it is conveyed by the latter into the press.

If the wet presses are constructed in such a way that the raising felt press *c* is placed between two laying felt presses *a* and *b*, the laying felt of the laying press following the raising press is guided in the same manner as the drying felt *n*.

What we claim as our invention and desire to secure by United States Letters Patent is:—

1. In combination with the raising felt press *c*, the guide rollers situated vertically above said press and adapted to be rotated by the weight of the paper, a transporting felt and means for supporting the paper off said felt on its way to the guide roller.

2. In combination with the raising felt press *c*, the transporting felt *g*, a guide roller located vertically above the press *c* and adapted to be rotated by the weight of the paper a transporting felt *f*, means for raising the paper off said felt *f* on its way to the guide roller, and a second guide roller *g* located in front of the press *c* and just above the felt *g* and adapted to receive the paper from the first guide roller and deposit it upon the felt *g*.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

FELIX BANNING.

FRIEDRICH KUNKEL.

Witnesses:

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