J. KÖHLEN.

TAKING-IN DEVICE FOR CLOTH FOLDING MACHINES.

APPLICATION FILED JAN. 6, 1912.

1,046,393. Patented Dec. 3, 1912.

Fig. 1.

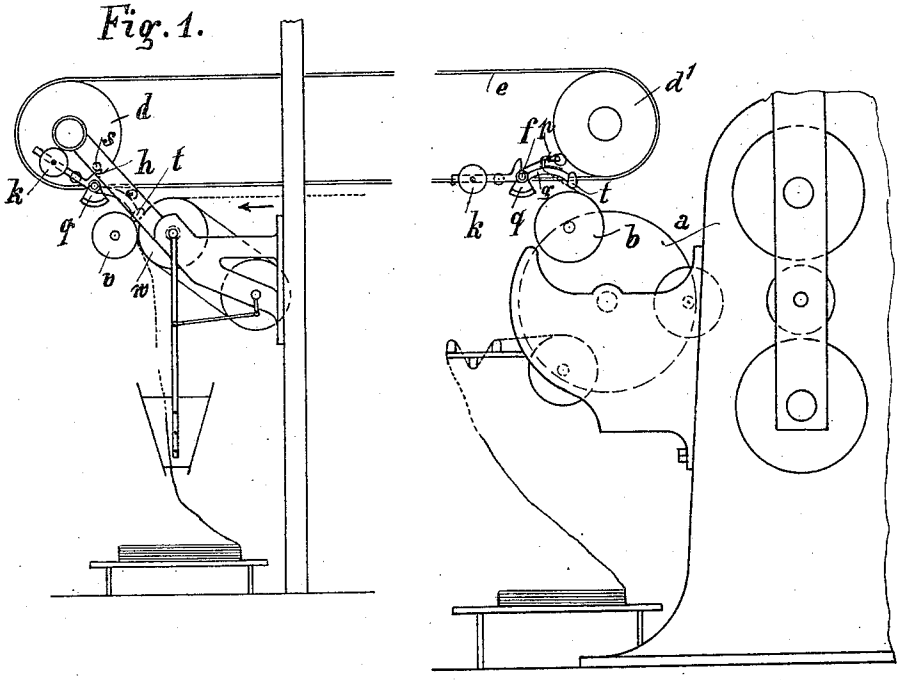


Fig. 2.

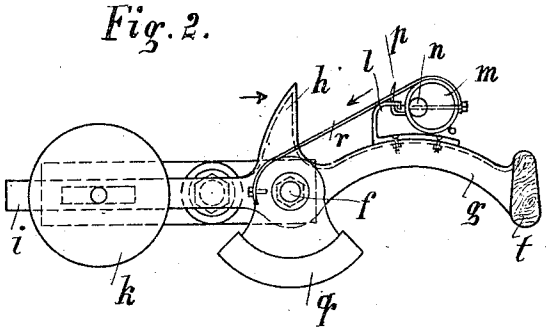
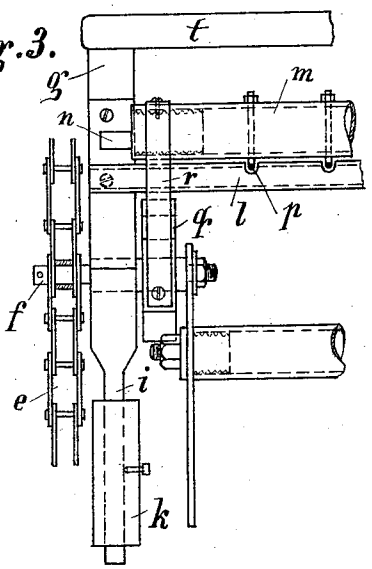


Fig. 3.



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TAKING-IN DEVICE FOR CLOTH-FOLDING MACHINES.

1,046,393. Specification of Letters Patent. **Patented Dec. 3, 1912.**

Application filed January 6, 1912. Serial No. 669,782.

To all whom it may concern:

Be it known that I, JOHANN KÖHLEN, a subject of the Emperor of Germany, residing at Grefrath, near Crefeld, Germany, have invented certain Improvements in Taking-In Devices for Cloth-Folding Machines, of which the following is a specification.

The present invention relates to a device for transferring the fabric in a calendering machine from the calendering rollers to the folding device and consists in the construction and combination of parts as hereinafter set forth and claimed, the improved arrangement being such that the fabric is carried evenly to the folding device and automatically introduced between the nip-rollers of the latter.

In the accompanying drawings the invention is illustrated, Figure 1 representing a diagrammatic side view of the device, Fig. 2, a side view on an enlarged scale of the principal element of the device, and Fig. 3, a plan of the latter.

The device consists of two chains *e* which are carried at a suitable distance apart over sprocket-wheels *d* and d^1, connected to rotatable shafts. To each of these chains a spindle *f* is connected which serves as a pivot for a double-armed lever *g i* (Fig. 2). The levers are arranged opposite one another on the chains and are connected by a cross-bar *t* held on the outer ends of the arms *g*. A cylinder *m* is mounted eccentrically by means of journals *n* in bearings connected to the arms *g*. This cylinder carries a row of hooks *p* which take into slots in a horizontal flange in a bar *l* which also connects the arms *g*. The hooks *p* are overbalanced by the eccentricity of the cylinder *m* and are normally held in engagement with said flange, the movement of the cylinder being limited by a belt *r* connected to the cylinder and to a pulley-shaped weight *q* which is loosely suspended on the spindle *f*. An upwardly directed lug *h* is connected to the double-armed lever above the pivot *f*. The arm *i* of the lever carries a weight *k* which balances the elements carried by the arm *g*. The shaft of the sprocket-wheel d^1 is mounted above the calendering machine *a*, and that of the wheels *d* above the folding machine which is of known construction.

The fabric is calendered by the machine *a* in the usual manner. From the cylinder *b* of this machine the fabric is carried underneath the bars *t* and *l*, folded back on the latter bar and connected to the projecting noses of the hooks *p*. Thereupon the machines are started, the fabric being moved by the chains *e* in the direction of the arrow. When the spindles *f* arrive at the folding machine, the lug *h* is engaged by a projecting pin *s*, connected to the machine frame above the path of the spindles, and causes the levers to be turned about the spindles. The bar *t*, which is lowered by this operation, engages the fabric and pushes it down between the nip-rollers *v*, *w* of the folding machine. During the movement of the levers the weight *q* remains in its perpendicular position and acts by means of the belt *r* on the cylinder *m* which, since it is lowered by the arms *g*, turns so as to withdraw its hooks from the flange of the bar *l*. The fabric is consequently stripped off the hooks by the flange simultaneously with the lowering of the bar *t* so that it is free to be fed by the nip-rollers into the folding device.

I claim:—

1. The combination with a cloth folding machine having nip-rollers, of a taking-in device comprising two distanced endless chains carried past said nip-rollers on shafts and sprocket-wheels, two pivots held in alinement one on each chain, weight-balanced double-armed levers on said pivots, a cross-bar connecting the rear ends of said levers, means for connecting the fabric to said levers, means for turning the levers when reaching said nip-rollers so that the fabric is introduced by said cross-bar between the rollers, and means for releasing the fabric from the levers when the latter are thus turned, substantially as set forth.

2. The combination with a cloth folding machine having nip-rollers, of a taking-in device comprising two distanced endless chains carried past said nip-rollers on shafts and sprocket-wheels, two pivots held in alinement one on each chain, weight-balanced double-armed levers on said pivots, a cross-bar connecting the rear ends of said levers, an eccentrically journaled cylinder carried by the rear arms of said levers, a pulley-shaped weight loosely suspended on one of said pivots, a belt connecting said pulley with said cylinder so as to control the position of the latter, a horizontal flanged bar carried by the arms near said cylinder, a row of hooks on said cylinder

normally disposed in slots in said flange and protruding through the same for the reception of the fabric, an upright lug on one of the levers, and a fixed pin on the folding machine frame arranged so as to engage said lug when the chains are moved and cause the levers to turn so as to press the fabric into engagement with said nip-rollers by means of said cross-bar, and release it from the hooks.

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