J. KERR.

Apparatus for Guiding and Delivering Woven Fabrics to Cloth-Finishing Machines, &c.

No. 221,576. Patented Nov. 11, 1879.

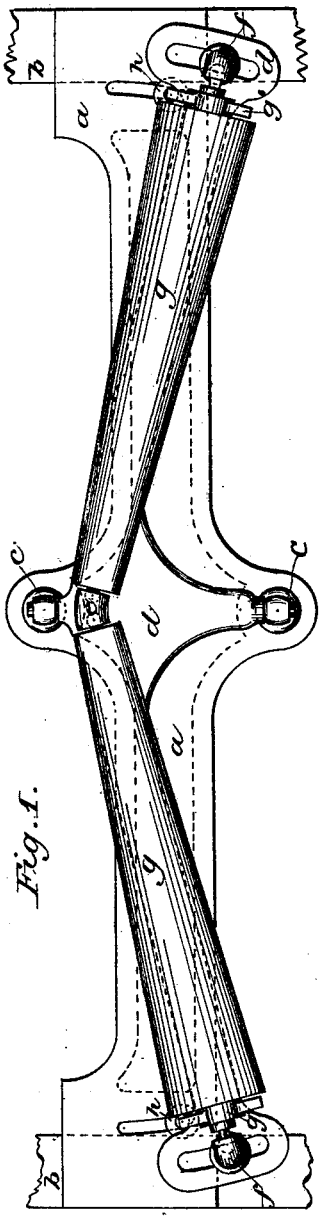

Fig. 1.

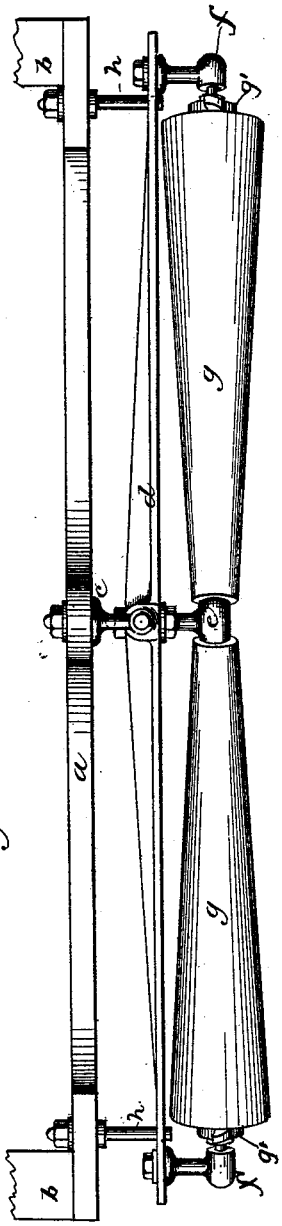

Fig. 2.

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UNITED STATES PATENT OFFICE.

JAMES KERR, OF CHURCH, COUNTY OF LANCASTER, ENGLAND.

IMPROVEMENT IN APPARATUS FOR GUIDING AND DELIVERING WOVEN FABRICS TO CLOTH-FINISHING MACHINES, &c.

Specification forming part of Letters Patent No. **221,576**, dated November 11, 1879; application filed May 16, 1879.

To all whom it may concern:

Be it known that I, JAMES KERR, of the firm of F. Steiner & Co., of Church, in the county of Lancaster, in England, have invented certain new and useful Improvements in Apparatus for Guiding and Delivering Woven Fabrics to Cloth-Finishing Machines, &c.; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the annexed drawings, forming part of this specification.

The invention consists in combining, with a suitable supporting-frame and a pivoted or swinging frame, rotating rollers journaled therein, having catch-plates on their ends for engagement with studs on the supporting-frame, and in combining, with rollers having a journal at each end, a deflecting frame, provided with arc-slots and bearings for the outer ends of the rollers, adjustable in the slots by screw and nut, all as hereinafter more fully described.

Referring to the accompanying drawings, Figure 1 is a front elevation, and Fig. 2 a plan, of my improved apparatus.

a is a cross-beam, which is secured to the uprights *b b*, or to any other suitable fixture. In the center of the cross-beam *a* are the bearings *c c*, supporting the trunnions of the deflecting frame *d*, to which is fixed the center bearing, *e*, and the outer bearings, *f f*. These bearings support the rollers *g g*.

The outer bearings, *f f*, are adjustable in arc-slots in the deflecting frame *d*, so as to be able to vary the angle at which the rollers are set, and all the bearings *e* and *f* can be adjusted by screws and nuts to vary the plane over which the fabric travels.

In the cross-beam *a* are fixed the studs *h h*, and to the outer end of each roller is fixed a catch-plate, *g'*. The object of these studs and catch-plates will be explained hereinafter.

The mode of operation is as follows: So long as the fabric passing over the rollers *g g* remains in the central position the rollers are carried round by the fabric, and the deflecting frame *d* remains about parallel to the cross-beam *a;* but as soon as the fabric begins to travel to one side the increased pressure of the fabric on one of the rollers *g* causes the corresponding end of the frame *d* to deflect and approach the cross-beam *a* until the catch-plate or wiper *g'* comes in contact with the stud *h* and arrests the revolution of one of the rollers, while the other continues to revolve freely. This, in conjunction with the increased friction of the fabric on the roller that has been arrested, causes the fabric to travel laterally from the stationary roller to the revolving one until it again approaches its central position, at which time the deflecting frame *d* regains its former position, and the fabric proceeds as before.

By means of this invention every deviation of the fabric to the right hand or the left causes a deflection of the frame *d* and brings one of the catch-plates *g'* in contact with the corresponding stud *h*, to arrest or retard one of the rollers, thus bringing the fabric back automatically to its central position.

Having thus stated the nature of my invention and described my preferred modes of performing the same, I wish it to be understood that I do not intend to limit myself exclusively to the details given, as the same may be varied or modified within the scope of the invention according to the particular purpose to which the apparatus is applied; but

What I claim herein as new is—

1. The combination, with a suitable supporting frame and a pivoted or swinging frame, of the rotating rollers journaled therein, having catch-plates on their ends and studs arranged in relation thereto, as shown and described, whereby when the said roller and frame are tilted one of the catch-plates comes in contact with a stud, thereby retaining and temporarily arresting the motion of the roller to which it is secured, while the other roller is left free to revolve and readjust the fabric in proper position on the rollers.

2. The combination, with rollers *g*, of a deflecting frame, *d*, provided with bearings *e f*, the latter secured in arc-slots corresponding to the end movement of the rollers as radii, and made adjustable by screw and nut, as shown and described.

In testimony whereof I have hereto set my hand before two subscribing witnesses.

JAMES KERR.

Witnesses:
C. A. BARLOW,
I. W. APPLEBY.