No. 647,439. Patented Apr. 10, 1900.

A. BROWN.

ADJUSTING DEVICE FOR CLOTH SHEARING MACHINES.

(Application filed Nov. 20, 1897.)

(No Model.)

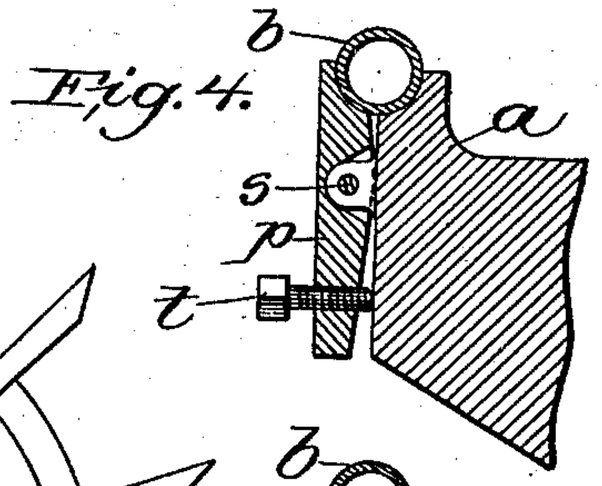


Fig. 4.

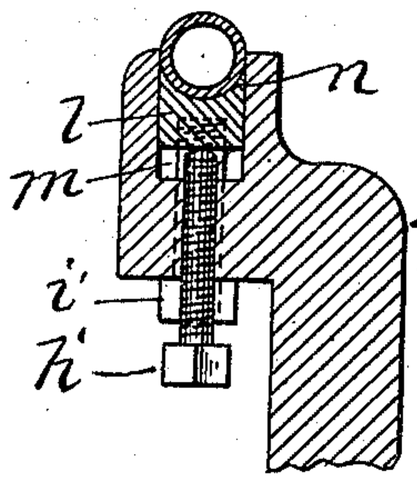
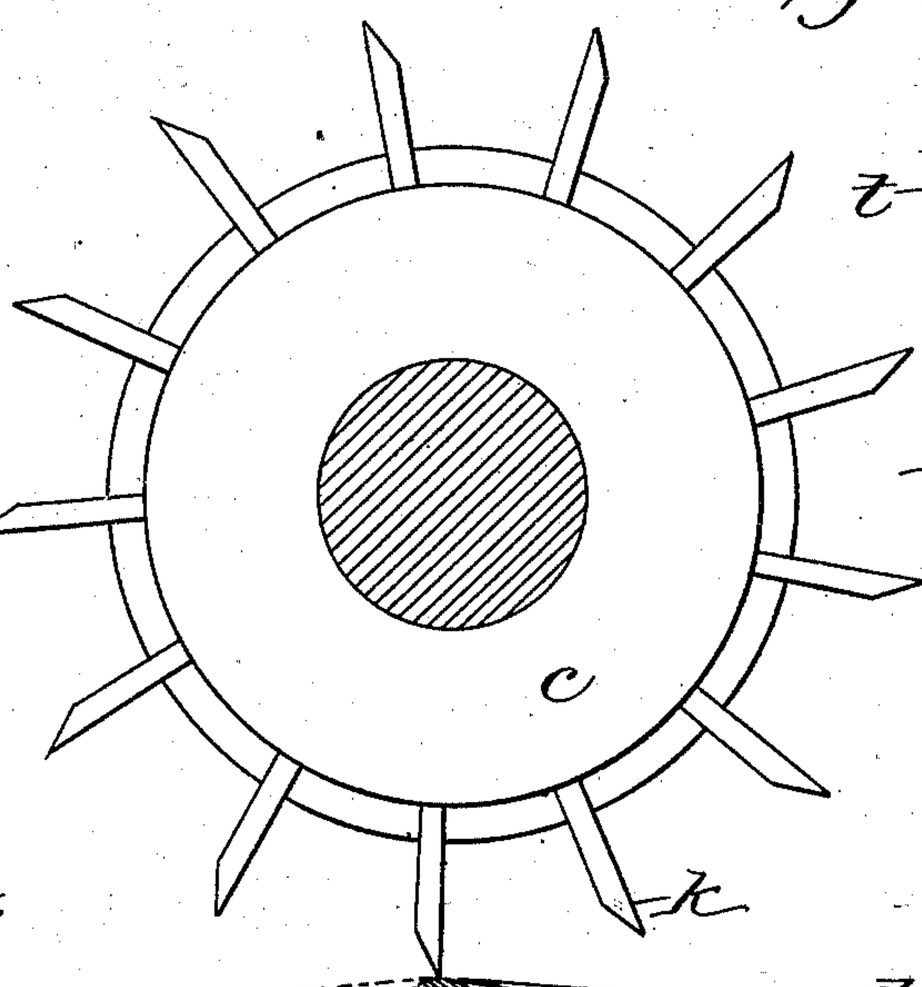


Fig. 2.



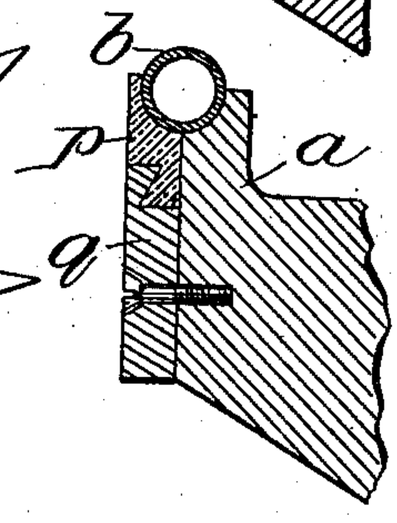


Fig. 3.

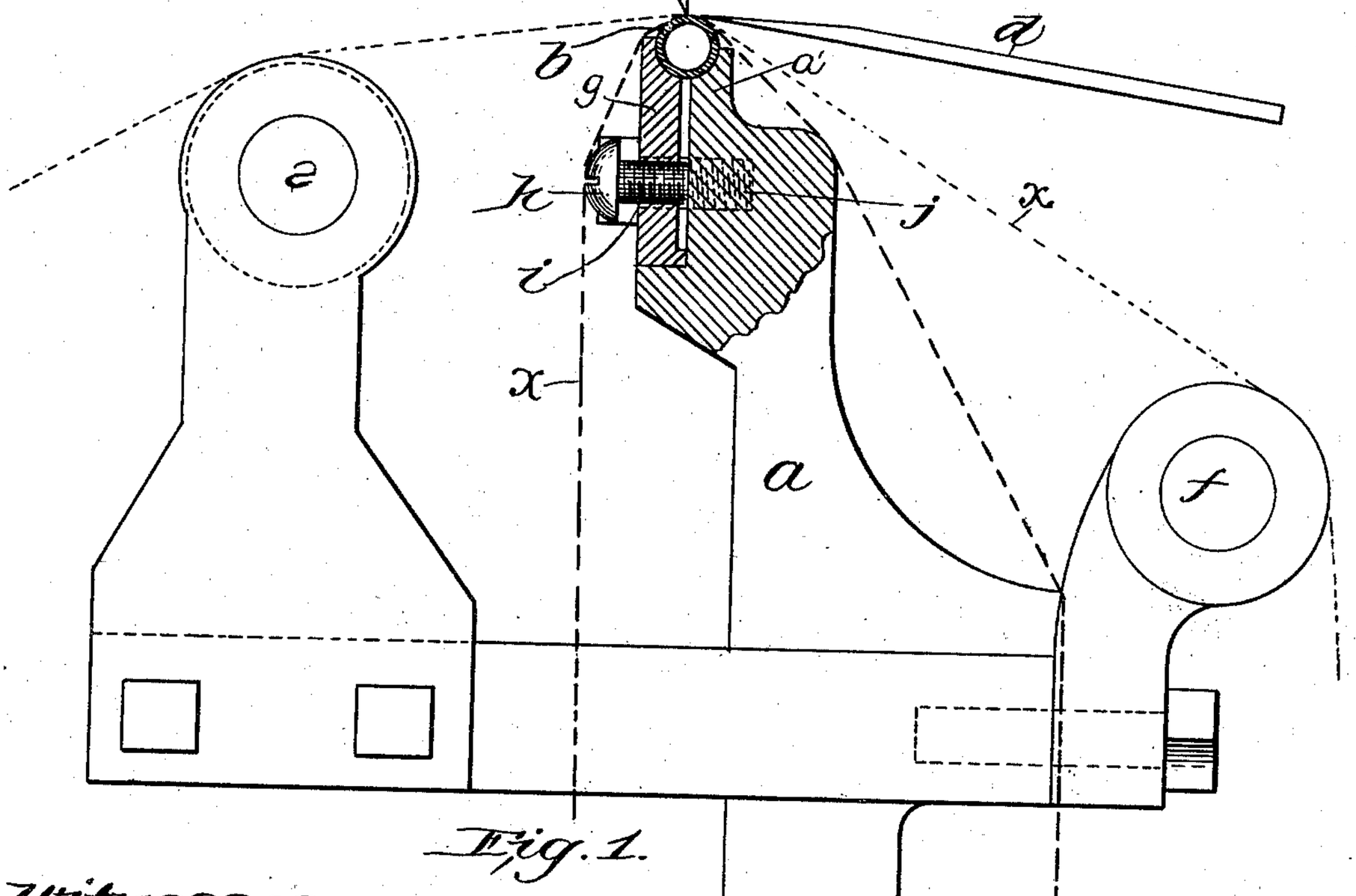


Fig. 1.

Witnesses:
Arthur F. Randall,
Annie J. Dailey.

Inventor:
Adna Brown
By Crosby & Goddard,
attys

UNITED STATES PATENT OFFICE.

ADNA BROWN, OF SPRINGFIELD, VERMONT, ASSIGNOR TO THE PARKS & WOOLSON MACHINE COMPANY, OF SAME PLACE.

ADJUSTING DEVICE FOR CLOTH-SHEARING MACHINES.

SPECIFICATION forming part of Letters Patent No. 647,439, dated April 10, 1900.

Application filed November 20, 1897. Serial No. 659,299. (No model.)

To all whom it may concern:

Be it known that I, ADNA BROWN, of Springfield, in the county of Windsor and State of Vermont, have invented certain new and useful Improvements in Adjusting Devices for Cloth-Shearing Machines, of which the following is a description sufficiently full, clear, and exact to enable those skilled in the art to which it appertains or with which it is most nearly connected to make and use the same.

This invention has relation to cloth-shearing machines employing a tube, roll, or other yielding material as the cloth bar or rest.

In machines of the kind mentioned it is frequently necessary in the performance of perfect work that the said rest should be made adjustable vertically with respect to the rotary spiral shear in order that it may act evenly and to the required depth or with needed closeness on the nap on the cloth.

It is the object of the invention to provide adjusting means of a cloth-rest or rest-bar of the character described which shall be simple in construction and mode of operation and efficient to the highest degree for the purposes for which it is intended.

To these ends the invention consists of a yielding tube or other form of yielding rest-bar and its support combined with its support and means broadly along its length whereby one part or point or a plurality of parts or points along its length may be adjusted vertically by distortion of the bar for the purposes stated.

Reference is to be had to the annexed drawings, and to the letters marked thereon, forming a part of this specification, the same letters designating the same parts or features, as the case may be, wherever they occur.

Of the drawings, Figure 1 is an end elevation, partly in section, of so much of a cloth-shearing machine as it is thought necessary to show in order to illustrate the principles of my invention. Fig. 2 is a sectional end view of a modified form of means for adjusting the cloth bar or rest. Figs. 3 and 4 are sectional views of other modified forms of the adjusting means for the rest-bar.

In the drawings, *a* designates the frame of the machine, on the upper part of which, in a grooved support, is the cloth or rest bar *b*. *c* is the rotary spiral shearing-blade, arranged directly above the cloth-bar.

d designates the ledger-blade, supported and arranged in suitable proximity and position with respect to the rest-bar and rotary shears.

e and *f* designate rests or guide-bars over which the cloth passes to and from the rest-bar in order to prevent the cloth from pressing too hard upon said rest-bar. Suitable guide bars and rolls are provided, (not shown,) upon which the apron *x x*, which covers the rest-bar, is wound and by which it is guided in order that a new part or unworn portion of the apron may be brought to bear upon the rest-bar every day.

The rest-bar *b*, referring to Fig. 1, bears upon a stationary part *a'* of the frame and upon an adjustable bar *g*, extending along the entire support or part *a'* of the frame. The said bar *g* has holes formed in it at intervals along the length thereof, and screws *h* are tapped therein, the inner ends of which bear against the stationary part *a'*. The shanks of other screws *i* extend through holes formed in the bar *g* and are tapped into holes *j* of the stationary part of the frame. It will be understood that if the rest-bar *b*, which consists of a rubber roll or other suitable yielding substance having a rounded upper part, should be pinched together to any degree at its sides it would be bulged, as it were, upward, so as to adjust it near the shearing-blades *k* and *c*, and if the rest-bar should be released it will assume its normal position, and hence will, as it were, fall away from the shearing-blades *k* and *c*. The adjustment of the bar *g* is secured, as before intimated, by the screws *h* and *i*. By turning the screws *h* inward it will, as it were, press the bar *g* outward, and by turning the screws *i* inward their heads bearing against the bar will draw the bar inward, just pinching the rest-roll *b*, as before stated, and adjusting the cloth carried thereon upward.

Another way of accomplishing the same or substantially the same adjustment of the rest-bar *b* is by the means shown in Fig. 2, in which the rest-bar *b* is supported upon a bar *l*, supported in a slot *m* in the frame, said bar being adjustable vertically by means of

set-screws h' i', operating with respect to the bar l and frame a substantially as do the set-screws h i, operating with respect to the bar g and frame, as shown in Fig. 1. The bar g, as also the bar l, is thin enough to bend or yield perceptibly under the stress of the setting-screws. The bar l is also provided with a rounded groove in its upper side to receive the rounded rest-bar.

Still another form of adjusting means for the bar b, which operates upon said bar b with a pinching and releasing effect, as has been stated with respect to what is shown in Fig. 1, is that shown in Fig. 3. In this case the rest-bar b is supported upon a stationary part of the frame a and upon a soft-metal bar p, having a dovetailed setting in a bar q, attached to the frame a. This has been found a practical and quite a suitable adjustable rest. In order to adjust the rest b upward, the soft-metal bar p, bearing against the rest-bar, is battered inward by any suitable process, and when it is desired to lower the rest-bar b the soft-metal bar p or supporting side thereof is bent outward slightly.

In Fig. 4 there is shown still another mode of adjusting cloth-rest b. In this case the bar b is supported in a slot upon the upper end of the frame a and a bar p hinged, as it were, to the frame a, as at s. This adjusting-rest operates by the pinching and releasing process before described, and the two bars are pinched upon the rest-bar at their upper ends by turning in the set-screw t, which is tapped through the hinged bar and the inner end of which bears against the frame. To secure a separation of the two bars, so as to release the bar b and lower it, the set-screw t is turned in the opposite direction. The bar p, like the bar g, is yielding.

In all cases the adjustments are for the purpose of securing the leveling of the rest-bar b or a vertical adjustment of a particular part thereof, as before stated and as is well understood by mechanicians in the art of finishing and shearing cloth.

Having thus explained the nature of the invention and described a way of constructing and using the same, though without attempting to set forth all of the forms in which it may be made or all of the modes of its use, it is declared that what is claimed is—

1. A cloth bar or rest for cloth shearing machines, the same composed of yielding or elastic material, combined with means along the bar for adjusting it vertically at different points throughout its length by distortion of the yielding material, substantially as described.

2. A cloth bar or rest for cloth-shearing machines consisting of a rubber tube or similar yielding device, combined with a support for the rest-bar, a side of which is adjustable laterally to pinch the sides of the bar upon the rest and release them to adjust or level the rest.

3. A cloth bar or rest for cloth-shearing machines consisting of a rubber tube or similar yielding device, combined with a support for the rest-bar, a side of which is adjustable laterally to pinch the sides of the bar upon the rest and release them to adjust or level the rest, the said adjustable part of the said support consisting of a soft-metal bar, as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 6th day of November, A. D. 1897.

ADNA BROWN.

Witnesses:
W. W. BROWN,
C. G. RICHARDSON.