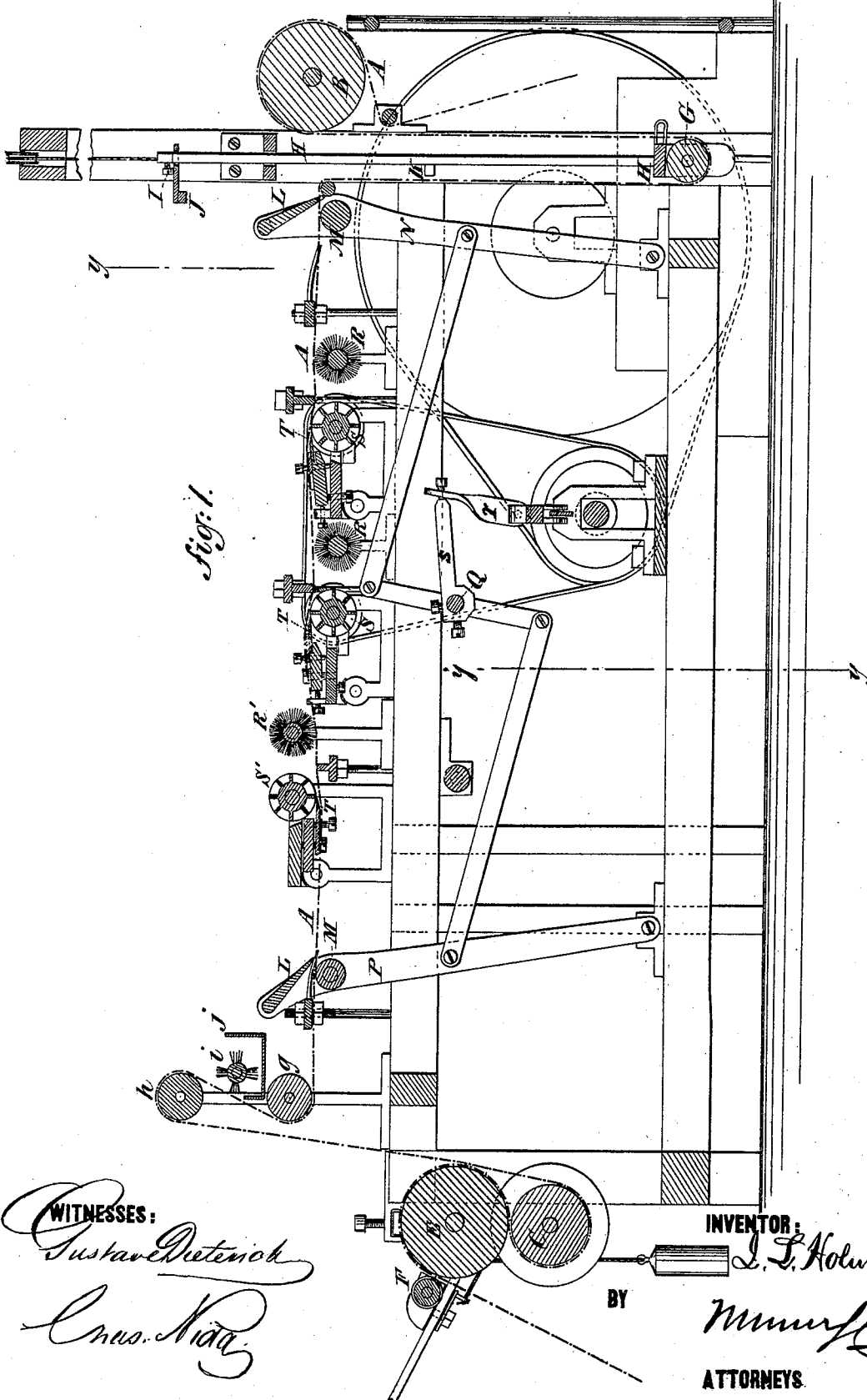


I. L. HOLMES.
CLOTH-SHEARING MACHINE.

No. 171,808.

Patented Jan. 4, 1876.



WITNESSES:
Gustave Dietrich
Chas. May

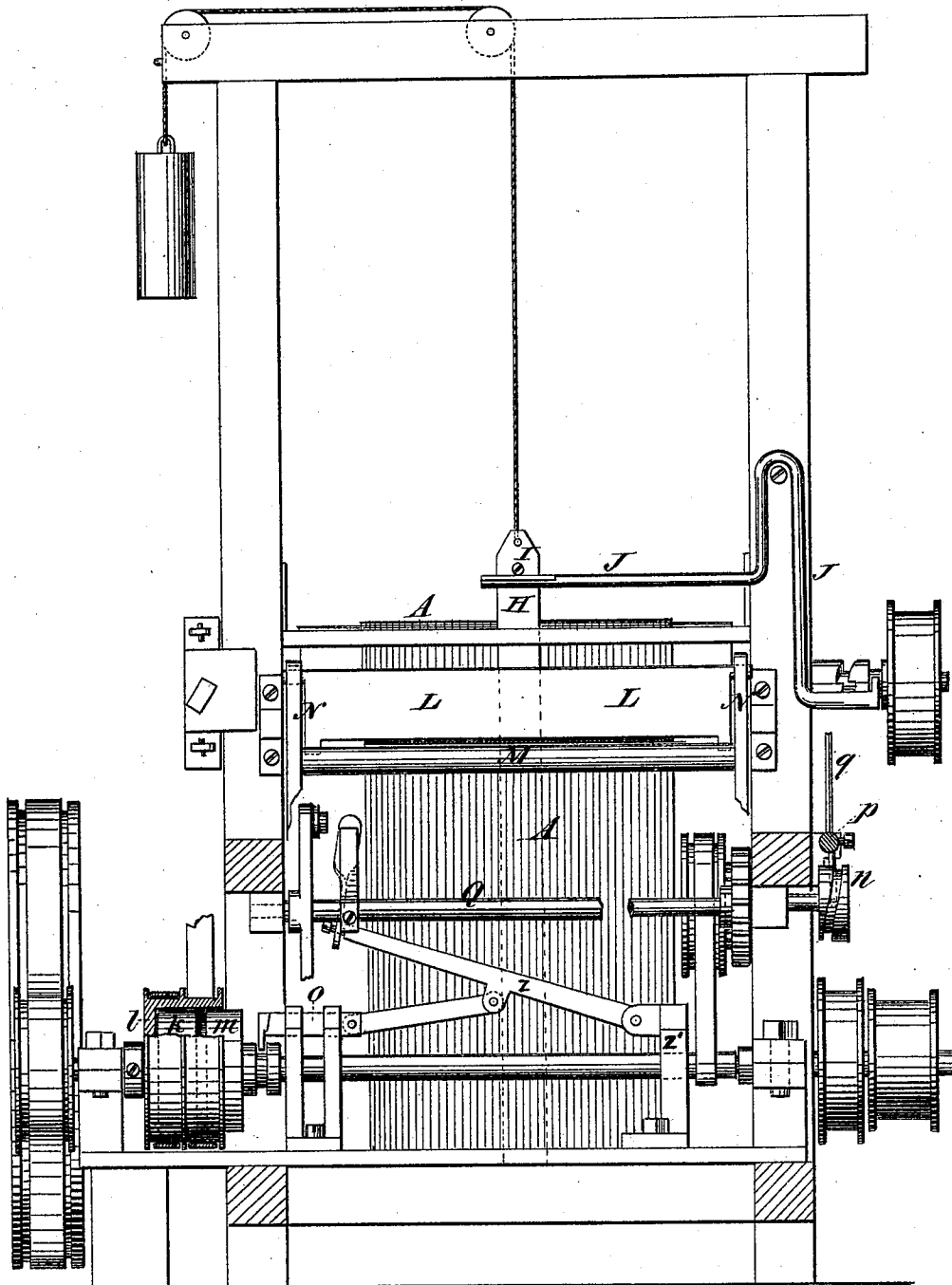
INVENTOR: *I. L. Holmes*
BY *Mumford*
ATTORNEYS.

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fig. 2



WITNESSES:

Gustav Dietrich
Chas. N. A. G.

INVENTOR:

Isaac L. Holmes
BY *Wm. H. L.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

ISAAC L. HOLMES, OF SACO, MAINE.

IMPROVEMENT IN CLOTH-SHEARING MACHINES.

Specification forming part of Letters Patent No. **171,808**, dated January 4, 1876; application filed July 31, 1875.

To all whom it may concern:

Be it known that I, ISAAC L. HOLMES, of Saco, in the county of York and State of Maine, have invented a new and Improved Cloth-Shearing Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification.

My invention relates to improvements in the construction and arrangement of certain parts of the cloth-shearing machine for which a patent was granted to me March 16, 1875, and which consists of an automatic contrivance whereby the revolving cutters are stopped by a seam when it approaches the cutters, and are again automatically set in motion after the seam has passed the cutters, to prevent the seam from being unduly cut. It also consists in an elastic disk in the friction-clutch, by which the rotary cutters are started and stopped.

Figure 1 is a longitudinal section. Fig. 2 is a transverse section taken on the line *y y* of Fig. 1.

Similar letters of reference indicate corresponding parts.

The cloth to be sheared is represented by the dotted line *A*, and is fed into the machine by the feed-roll *B*, and drawn out by the roll *C*, steam-roll *E*, and ironing-roll *F*. From roll *B* it passes to the tension-roll *G* in the vertically-sliding frame *H*, which automatically stops the feed-roll by the stop *I* and shipper *J* when a certain quantity of cloth has been fed in, in excess of the delivery, and starts it again by the stud *K* and shipper when the excess has been taken up by the delivery, the object being to prevent any hinderance whatever to the passage of the cloth, except the weight of the tension-roll, which thus makes exactly uniform tension. *L* and *M* represent gripping-jaws on a rack-frame, *N*, for catching the seams in the cloth and stopping the ro-

tary cutters to let the seams pass them, so as not to be cut, as they would be destroyed. The rocker-frame works the shipper *O*, for so stopping the machine, and at the same time it swings forward another rack-frame, *P*, having corresponding grippers, to be caught by the seam when passing away from the cutters, to set them in motion again by reversing the shipper *O*, which stops and starts the cutters by a clutch. The shipper *O* is connected by a pivot to the middle of a bar, *z*, that is fulcrumed at one end to a standard, *z'*, and at the other end is connected, by means of a link, *r*, with an arm, *s*, which projects from the rack-shaft *Q*, to which also the rack-frames are coupled. The cloth passes over the rotary lint and dust brushes *R* and cutters *S*, and under one or more brushes, *R'*, and cutters *S'*, and at each rotary cutter there is a stationary cutter, *T*, between which and the rotary cutter it passes, the stationary cutter being mainly to regulate the effect of the rotary cutter by pressing the cloth thereon with more or less force. *k* is an elastic disk introduced between the pulley *l*, which drives the rotary cutters and the clutch-disk *m*, that sets the pulley in motion, the object being to prevent shocks by starting the cutters when the machine is running fast.

Having thus described my invention, what I claim as new is—

1. The combination, with mechanism for driving a cloth-shearer, of the clutch-disk *m*, pulley *l*, and elastic disk *k*, applied as and for the purpose specified.

2. The combination of the swinging frames *N P*, rock-shaft *Q*, and connecting mechanism, as described, with lever *z* and shipper *O*, as and for the purpose specified.

ISAAC L. HOLMES.

Witnesses:

JOSEPH H. MEANS,
WINFIELD S. HASTY.