

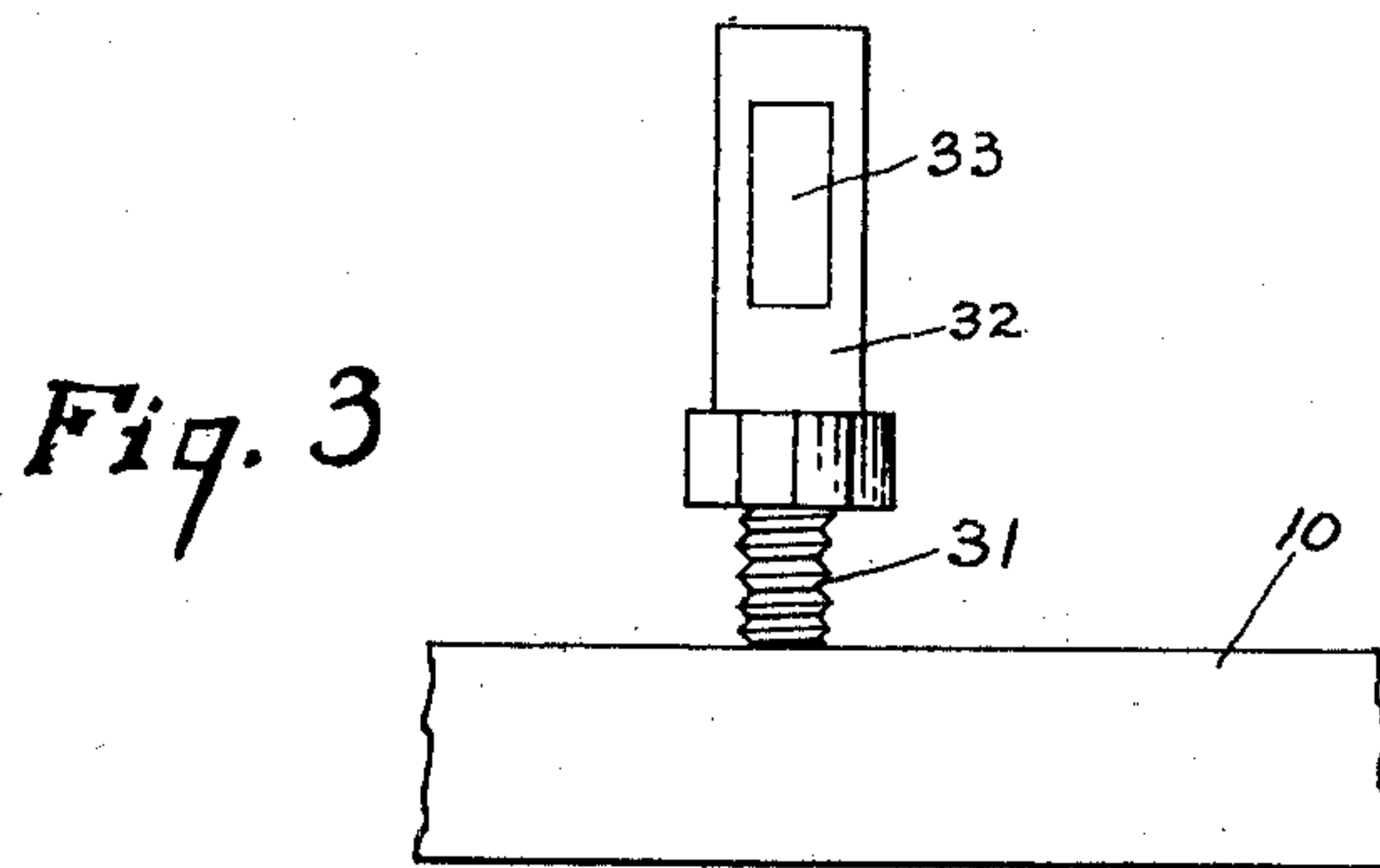
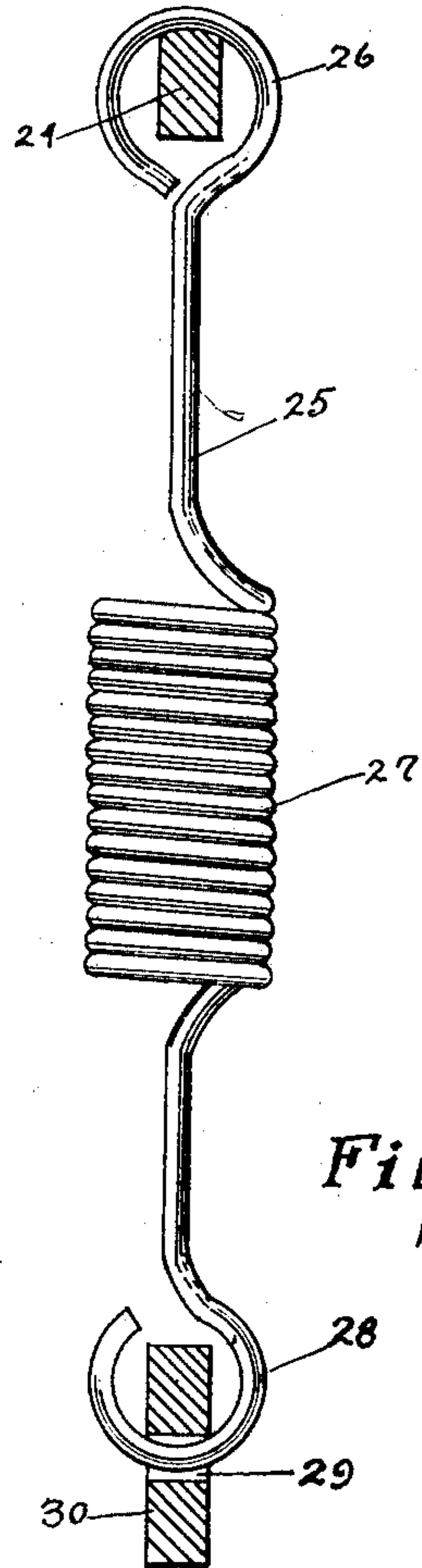
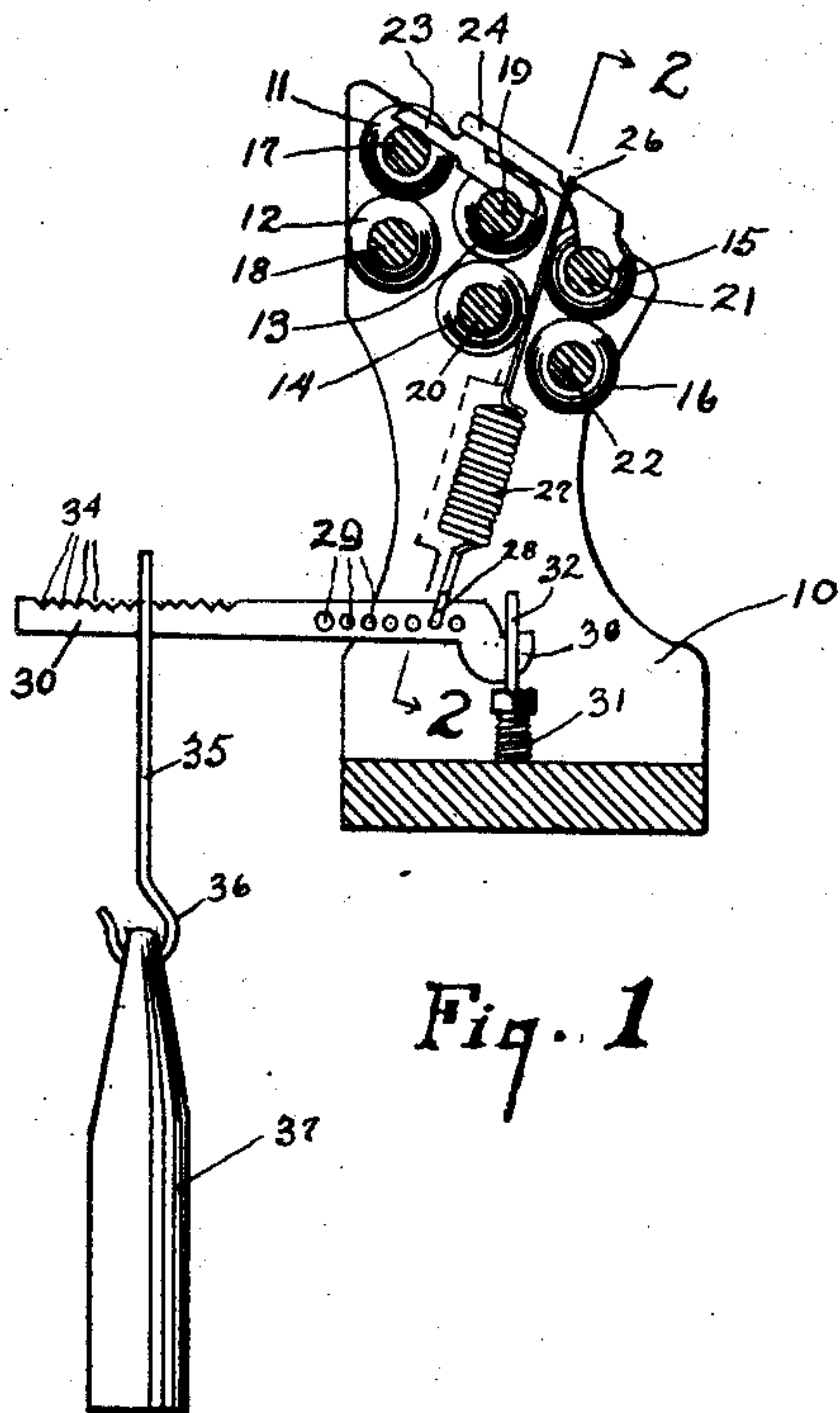
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PRESSURE MECHANISM FOR ROLL STANDS

Filed May 18, 1927



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UNITED STATES PATENT OFFICE.

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PRESSURE MECHANISM FOR ROLL STANDS.

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This invention relates to pressure regulating mechanism for roll stands, and more especially to mechanism for inducing and controlling the feeding pressure of the feed rolls upon the roving in the operation of supplying it to the spindles.

I am aware that heretofore that various means have been employed for regulating the pressure of the rolls in spinning frames and speeder frames, but, I have combined weighted means with tension means, and means for regulating both the weight exerted and the tension placed upon the rolls.

An object of my invention is to provide in spinning frames and the like, means for regulating the pressure of the rolls, said means comprising a combination of tension means and weight means, and means for adjusting both the weight and tension means.

Another object of my invention is to combine tension and weight means for regulating the pressure of rolls in spinning frames and the like, and means for regulating the said means.

Some of the objects of invention having been stated, other objects will appear, when taken in connection with the accompanying drawings, setting forth a preferred embodiment of my invention, in which—

Figure 1 is a side elevation, partly in section of a spinning frame, showing my device for regulating the pressure on the rolls in place;

Figure 2 is a cross-sectional view taken along the line 2—2 in Figure 1;

Figure 3 is an enlarged front elevation of the hooked member attached to the frame for holding my device in operation.

A brief description of the drawings having been given, other objects and details will more definitely appear by particular reference to the various parts of my structure by reference characters, the reference characters indicating corresponding parts throughout the drawings, and in which the numeral 10 indicates the main stand of the spinning frame, which has a plurality of drawing rolls 11, 12, 13, 14, 15 and 16 fixedly mounted on suitable shafts 17, 18, 19, 20, 21 and 22.

Resting on the top portions of the shafts 17, 19 and 21 are the equalizing levers, 23 and 24, the lever 24 having a notch or other suitable means for holding the upper end of the tension device 25. This tension device has the ring portion 26 which fits around the lever

24, and intermediate its ends it has the coiled spring portion 27, and at its lower end it has another ring portion 28 which is adapted to be inserted in any one of the holes 29 in the lever 30.

Secured to the main stand portion 10, is the threaded member 31 which has an upwardly projecting portion 32, which portion has the slot 33 therein adapted to receive the hooked end of the lever 30. The lever 30 has a plurality of notches 34 along its upper edge in which is adapted to rest the member 35, and the lower end of the member 35 has a hooked portion 36 on which a suitable weight 37 may be placed and removed at will.

By means of the holes 29, the notches 34, the threaded member 31, and by adjusting the size of the weight 37, a very fine adjustment of the weight and pressure exerted upon the pressure rolls may be secured. By having the coiled portion 27 immediate response is made to unusual pressure caused by larger sections of the material passing thru the rolls, and the weight 37 aids in this resiliency. This arrangement gives a very fine adjustment of the tension and I find is much more desirable than a weight alone, or a coarsely adjusted spring.

In the drawings and specification I have set forth a preferred embodiment of my invention, and although specific terms are employed, they are used in a generic and descriptive sense only, and not for purposes of limitation, the scope of the invention being set forth in the appended claims.

I claim:

1. A pressure regulating mechanism for drawing rolls and the like, comprising equalizing levers bearing on the rolls, a member engaging the upper equalizing lever and extending downward between the rolls, a section of the said member being in the form of a coiled spring, a hook on the lower end of the member, a lever pivoted to the main frame of the roll stand, a vertically adjustable fulcrum point for said lever, a plurality of holes in the said lever adapted to receive the hooked lower end of the said member, a plurality of notches in the upper edge of the said lever, and a weight adapted to be adjustably secured in any one of the notches.

2. In a pressure regulating mechanism for roll stands, a plurality of rolls mounted in the stand, a plurality of equalizing levers mounted above the rolls, a coiled spring mem-

ber having an eye in its upper end adapted to be secured to the topmost equalizing lever, an eye in the lower end of the coiled spring member adapted to be inserted in any one of a plurality of holes in a lever, means for pivotally mounting the last named lever to the base of the roll stand, said means being vertically adjustable, a plurality of notches in the upper edge of the last named lever, and a

weight adapted to be adjustably secured in any one of the said notches. 10

3. In a pressure regulating mechanism for roll stands, a one-piece stirrup strap having a portion thereof intermediate its ends coiled to provide tension means, said stirrup strap 15 being made of spring steel.

In testimony whereof I affix my signature.

WILLIAM A. CARPENTER.