W. E. MORTON.

SLUB DETECTING AND REMOVING MECHANISM.

APPLICATION FILED APR. 5, 1909.

944,898. Patented Dec. 28, 1909.

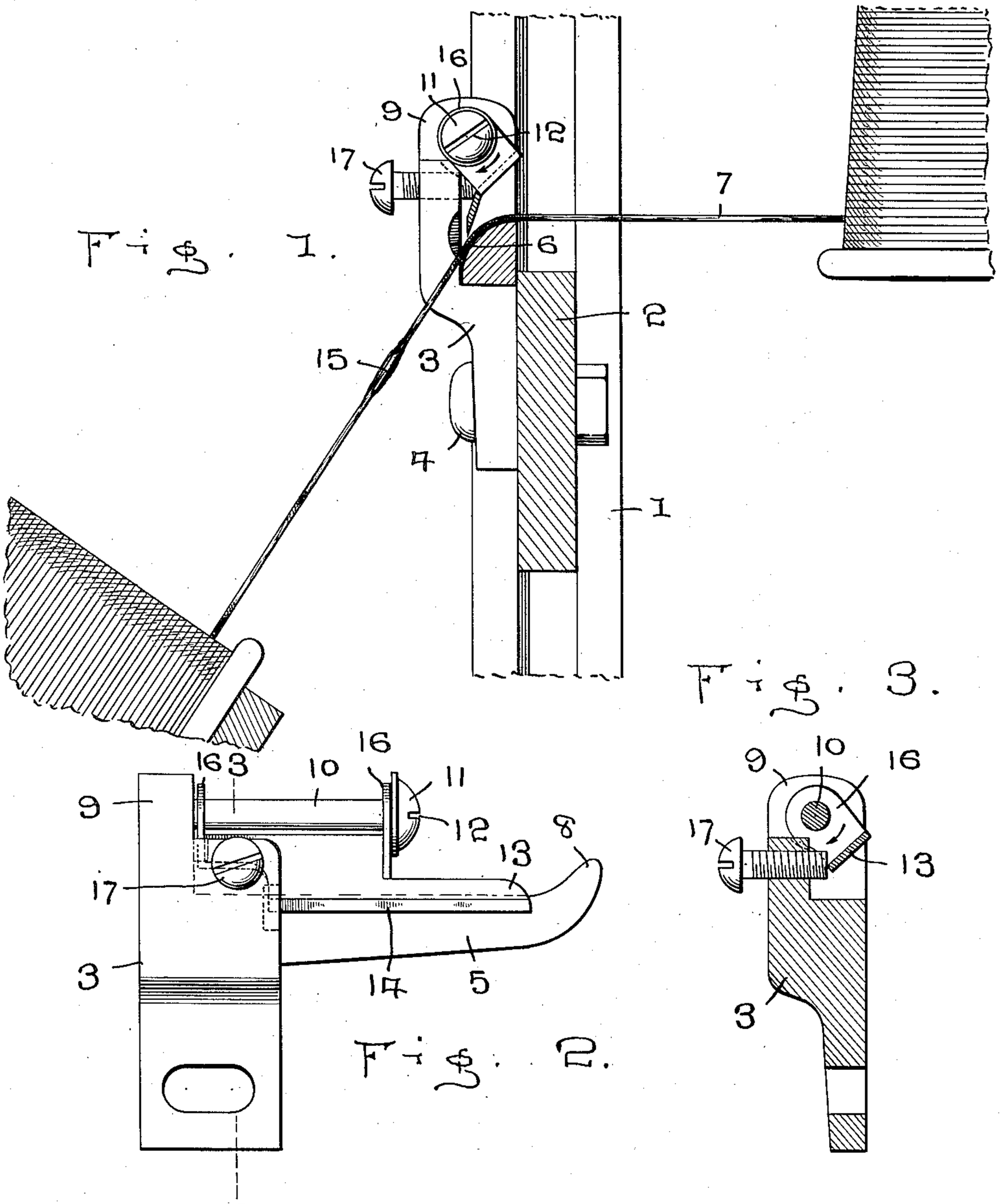


Fig. 1.

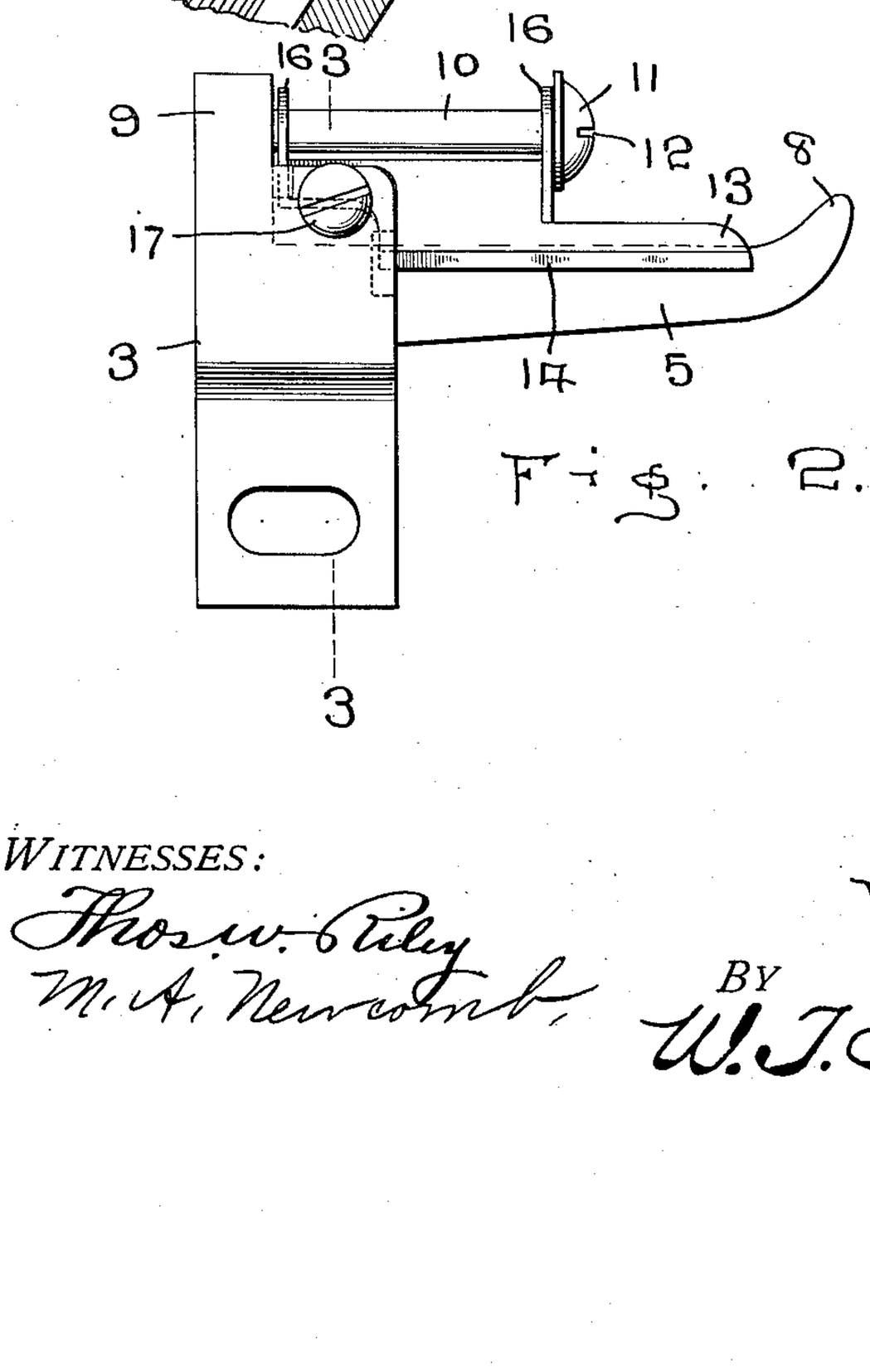


Fig. 2.

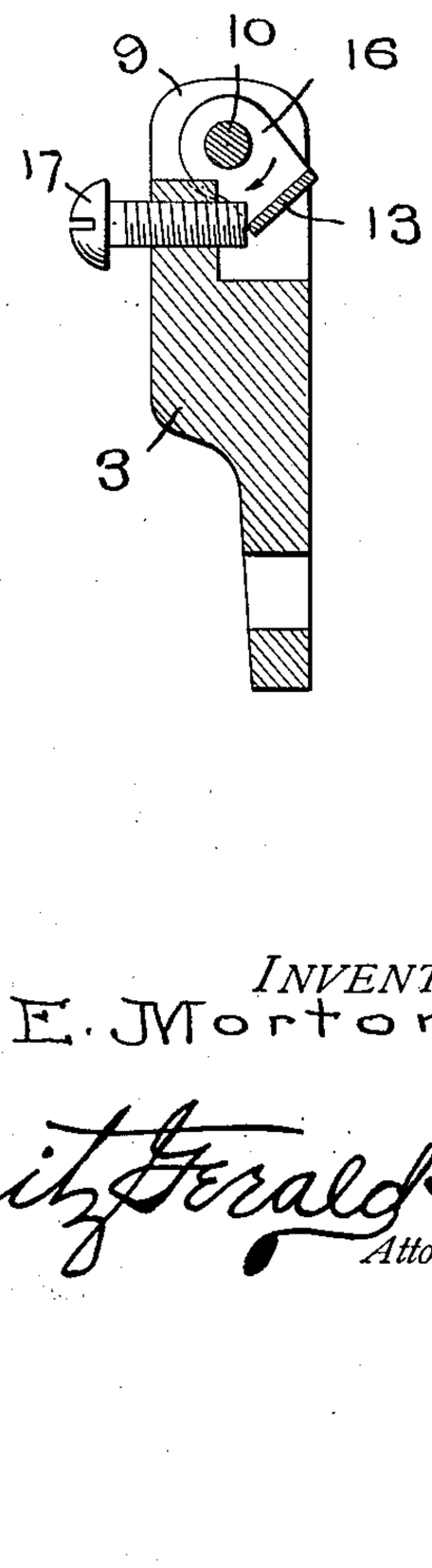


Fig. 3.

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# UNITED STATES PATENT OFFICE.

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## SLUB DETECTING AND REMOVING MECHANISM.

944,898. Specification of Letters Patent. Patented Dec. 28, 1909.

Application filed April 5, 1909. Serial No. 488,057.

*To all whom it may concern:*

Be it known that I, WORTHINGTON E. MORTON, a citizen of the United States, residing at Shelby, in the county of Cleveland and State of North Carolina, have invented certain new and useful Improvements in Slub Detecting and Removing Mechanism; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in slub detecting and removing mechanism and my object is to provide means for readily removing slubs from cord, the main object being to provide a device which will positively engage the slubs on the cord and cause the cord to break and a further object is to provide suitable means for adjusting parts of the device to accommodate threads of varying diameters.

In the accompanying drawings forming part of this application, Figure 1 is a detail sectional view showing my improved slub detecting device applied to use. Fig. 2 is a front elevation thereof. Fig. 3 is a sectional view as seen on line 3—3, Fig. 2.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the standard, which may be constructed in any preferred manner, to which is attached a bar 2, there being preferably two of the standards, one for each end of the bar.

Secured to the bar 2 is a bracket 3, which is held in engagement with the bar by means of a bolt 4, the upwardly extending portion of the bracket having a laterally extending arm 5 thereon, one face of which is curved as shown at 6, over which is adapted to pass a cord 7, the free end 8 of the arm 5 also being curved upwardly to hold the cord in position on the arm and it will be readily seen that by curving one face of the arm as shown, the cord will readily pass thereover without undue friction. The extreme upper end of the bracket 3 terminates in an ear 9, into which is introduced one end of a shaft 10, the outer end of the shaft being provided with any suitable form of head 11, as shown, said head being provided with a slot 12, whereby a screw driver or the like may be readily introduced to enter the shaft into the ear.

Coöperating with the curved portion 6 of the arm 5 is a blade 13, the free edge 14 of which is tapered and extended substantially at right angles to the trend of the cord when passing over the arm, thereby presenting an abrupt edge to the cord so that when an enlarged portion as shown at 15 is encountered, the engagement of the cord with the slub will cause the blade to swing toward the arm and sever or break the cord, said blade being so arranged as not to engage a cord of uniform size and presenting a smooth surface.

The blade 13 is suspended from the shaft 10 by extending ears 16 upwardly from parts of the blade, said ears being pivotally mounted on the shaft, whereby the blade may readily swing when applied to its intended use and by so arranging the blade as to cause the body portion thereof to rest in a plane at an angle to a vertical line through the center of the shaft 10, the weight of the blade will cause the same to swing by gravity away from the cord, thereby permitting a close adjustment of the blade with the cord without causing the blade to engage the cord until an obstruction is encountered. The blade is held in juxtaposition to the cord by means of an adjusting screw 17, which screw is threaded through a portion of the bracket 3 and has its inner end in engagement with one edge of the blade frame and by turning said screw inwardly or outwardly, the engaging edge of the blade will be adjusted toward or from the curved face of the arm 5, the weight of the blade and its frame causing the same to travel by gravity with the screw as the screw is turned outwardly.

In practice, the cord is wound from one object to another and by passing the cord through the slub detecting device, any slubs or enlarged portions of the cord will be engaged by the blade 13 and the cord immediately broken at this point, so that the inferior parts of the cord may be removed and the severed ends are then again united by tying the same, a knot in the cord being preferable to a slub or inferior portion.

What I claim is:

1. In a device of the class described, the combination with a bracket having an arm thereon, said arm being a quarter circle in cross section to form a bearing surface to receive a cord; of an elongated blade having an edge adapted to rest in juxtaposition to

the cord, ears carried by the blade, a shaft engaging said ears and means to move said blade laterally to adjust the same with respect to said arm.

2. In a device of the class described, the combination with a bracket having an integral arm thereon, said arm being quarter round in cross section and curved upwardly at its free end; of an elongated blade, the cutting edge of which is tangentially arranged with respect to the axis of said arm, ears on said blade, a supporting shaft for said blade and a set screw adapted to swing the blade to one side of the vertical center of said shaft, whereby said blade will move by gravity away from the arm.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WORTHINGTON E. MORTON.

Witnesses:
J. A. ANTHONY,
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