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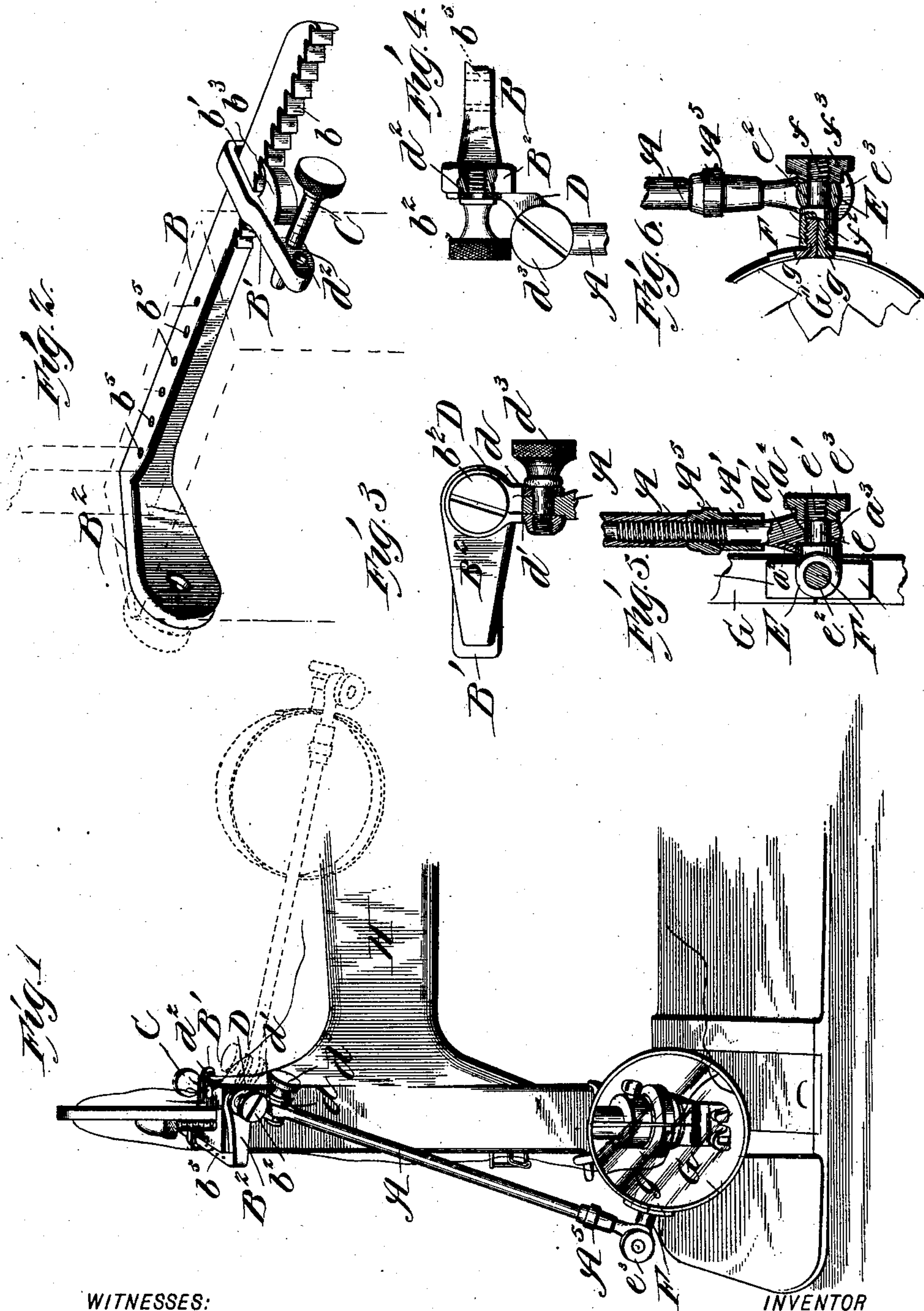
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S. JONES.

MAGNIFYING ATTACHMENT FOR SEWING MACHINES.

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NO MODEL.



WITNESSES:

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## UNITED STATES PATENT OFFICE.

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## MAGNIFYING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 756,024, dated March 29, 1904.

Application filed December 16, 1902. Serial No. 135,392. (No model.)

*To all whom it may concern:*

Be it known that I, SALLIE JONES, of Glasgow, in the county of Barren and State of Kentucky, have invented a new and useful Improvement in Magnifying Attachments for Sewing-Machines, of which the following is a specification.

My invention relates to an improvement in magnifying-glass attachments for sewing-machines, its object being to provide a device which will facilitate the setting, threading, or adjustment of the needle, &c.

In some classes of machine-sewing it is very necessary that particular adjustment of the needle should be had to attain the best results. It is extremely difficult for persons with average good eyesight to get these adjustments. Persons having defects of vision find it almost impossible to make these adjustments and find it extremely difficult to even thread the needle. It is the purpose of my improvement to overcome these difficulties and permit any one to make the most delicate adjustment of the needle, thread the needle, and see that the sewing to be done is properly executed.

My invention consists in certain novel features of construction, as will be hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my invention as in use. Fig. 2 is a detail perspective view of clamp. Fig. 3 is a detail view, partly in section, showing the upper joint of the lens-carrying rod. Fig. 4 is an end view of Fig. 3, partly in section. Fig. 5 is a detail sectional view illustrating the lower joint of the lens-carrying rod and also the means of adjusting the lens-carrying rod. Fig. 6 is a side view of Fig. 5, parts being shown in section.

In carrying out my invention I use the magnifying-glass-carrying rod A, which is adjustably secured to the head of a sewing-machine by a clamp. Said clamp consists of a rigid member B and a movable member B'. At one end of member B extends, at preferably a right angle thereto, the short arm B<sup>2</sup>, which is provided at or near its free end with a threaded opening to receive a set-screw b<sup>2</sup>. The mem-

ber B, which is of sufficient length, extends across the width of any ordinary size machine and is provided on its inner face at its straight end with teeth b, formed by cutting notches in said member B. The member B' is provided at one end with an opening b', similar in shape to the member B, over which it fits loosely and slides thereon. Extending outwardly from the outer face of member B' is the curved tooth or pawl b<sup>3</sup>, the point of which is tapered. Beyond the pawl b<sup>3</sup> at or near the end of member B' is provided one or more threaded openings, in which a set-screw C is designed to be screwed. Now it will be seen that by placing the clamp at the top of the head of a sewing-machine, the member B<sup>2</sup> resting against the front thereof, the member B lying along one side of the head, the member B' is slid along the member B against the rear of the head and the set-screw C screwed inwardly against the head, causing the member B' to tilt on member B, and forces the pawl or tooth b<sup>3</sup> into one of the notches formed by the teeth b and securely holds the clamp in place.

The member B is provided, as shown in the drawings, with a number of holes b<sup>5</sup>, usually about six, for the passage of the thread, as will be more fully described hereinafter.

As stated, the magnifying-glass-carrying arm A is adjustably secured to the head of the machine by the clamp.

I will now describe the particular means by which said rod or arm A is so secured. The upper end of the rod A is flattened or reduced and provided with an opening extending transversely through said flattened or reduced portion. The reduced portion is fitted between the ears d d' of a clip or shackle, which consists of the body portion D, having an opening d<sup>2</sup> and said ears d d'. The ear d' is somewhat thickened at its outer end and is provided with a threaded opening therethrough, while the corresponding opening in ear d is unthreaded. A shouldered set-screw d<sup>3</sup> completes the shackle and is passed through the ears and the upper end of rod A. The threaded end of set-screw d<sup>3</sup> fits the threaded opening in ear d', the smooth portion of its shank fitting in the opening in ear d and the shoulder resting against



the outer face of ear  $d$ . The shackle is adjustably secured to the clamp member  $B^2$  by set-screw  $b^2$ , passing through opening  $d^2$ .

The lower end of rod A is hollow and internally threaded to receive a threaded extension-plug  $A'$ . Said plug has a swell  $a'$  near its lower end, and below said swell it is reduced or cut away on two sides, forming shoulders  $a^2$ , and through the reduced portion  $a^3$  a transverse opening  $a^4$  is made. Through this opening a pin extends, said pin consisting of head E, the reduced shank  $e$ , and the threaded end  $e'$ . The head of said pin is reduced or cut away on two sides, forming a shoulder, and through this reduced portion extends an opening  $e^2$ . On the threaded end  $e'$  is screwed the shouldered nut  $e^3$ . On the threaded extension-plug  $A'$  is fitted the internally-threaded sleeve  $A^5$ , which can be screwed up or down on said plug, downwardly until it engages the swell  $a'$  or upwardly until it engages the hollow lower end of rod A.

As stated, the head of pin E has a reduced portion through which a hole  $e^2$  is made. Through this hole is passed the threaded end  $f$  of a shouldered stud F, the opposite end  $f^2$  of said plug being enlarged and internally threaded to receive the threaded half-sections  $g g$  of the magnifying-glass clamp G. The plug F is secured to the pin E by means of the shouldered nut  $f^3$ . The neck of the nut  $f^3$  fits one of the shoulders of pin E and the neck of nut  $e^3$  fits one of the shoulders of the extension-plug  $A'$ , while the head of pin E fits the opposite shoulder of said plug  $A'$ . By means of these shoulders and nuts joints are formed, by means of which the parts may be swung in any direction.

The glass-clamp G consists of the split ring  $G'$  and the threaded extensions  $g g$ , and when said extensions are screwed into the nut F the ends of the split ring will be brought closely together and securely clamp the magnifying-glass.

When the attachment is not in use, the glass is folded alongside of arm or rod A and the said rod or arm folded alongside the horizontal arm H of the machine and held there by tightening the necessary nuts and set-screws. (See dotted lines, Fig. 1.)

When it is desired to bring the attachment into use, the various nuts and set-screws are loosened and the various parts or members swung into position, the glass being brought into position to get the correct focus on the needle, and the joints are then tightened and locked by tightening the nuts and set-screws.

My device may be applied to any of the various styles of machines and may be sold with the machine or as a separate attachment, it being readily attached and detached and does not interfere in any way with the working of the machine.

The holes in the member B of the clamp

are for passing the thread through, according to the style of machine used.

The clamp may be applied to the right-hand side of the head instead of the left, as shown, if desired, in which case the holes in member B will not be used.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The magnifying attachment for sewing-machines comprising the clamp having an adjustable member whereby it is adapted to be removably attached to the head of a machine and adjusted higher or lower thereon, an extensible bar or arm, and a universal joint connecting said bar with the aforesaid clamp, whereby the bar may be swung in any direction, a universal joint attached to the outer end of said extensible bar or arm, and a lens or magnifying-glass secured to such universal joint, whereby it may be adjusted with and also independently of the bar, higher or lower or laterally and turned on its axis, as shown and described.

2. In a sewing-machine attachment the combination with a clamp adapted to be secured to the head of a machine, of a shackle pivotally secured to said clamp, a rod pivotally secured to said shackle and internally threaded at its lower end, an extension screw-plug fitting in the said lower end, a pin pivotally secured in the lower end of said extension-plug, a stud pivotally secured in one end of said pin and having one end internally threaded, a ring inclosing a lens and provided with a threaded projection or extension, said extension fitting in the internally-threaded end of the stud, whereby the said lens may be universally adjusted to focus a needle held in the head of the machine.

3. In an attachment for sewing-machines, a clamp comprising an angled member, notches or teeth on one side thereof, a sliding member provided at or near one end with an opening adapted to loosely fit over said angled member, a bent pawl or tooth projecting from the outer face of said sliding member, a set-screw threaded through said sliding member at or near its free end, whereby when said set-screw is screwed against the head of the machine, the bent pawl or tooth will be tilted into engagement with a notch on the angled member, and securely fasten the clamp in place, a rod or arm pivotally secured to said clamp, a universal joint secured to the lower end of said rod, and a lens or magnifying-glass secured to said universal joint.

4. In an attachment for sewing-machines the combination with a clamp adapted to be adjustably secured to the head of a machine, of a shackle adjustably secured to said clamp, a rod or arm adjustably secured to said shackle and internally threaded at its lower end, a tapering threaded extension-plug fitting the



internally-threaded end of said rod, a threaded sleeve fitted on said extension-plug, a pin adjustably secured in the lower end of said extension-plug, a stud adjustably secured in one end of said pin and internally threaded at one end, a split ring inclosing a lens, threaded extensions projecting from the ends of said split ring and fitting in the internally-threaded end of said stud, whereby the lens will be securely held in its frame and whereby the said lens may be adjusted to focus a needle in the head of the machine and also folded up against the arm of the machine when not in use.

5. In an attachment for sewing-machines the combination with an adjustable clamp adapted to be secured to the head of a machine, one member of said clamp being provided with a series of holes for the passage of the thread, a shackle adjustably secured to said clamp, a rod or arm pivotally secured to said shackle and internally threaded at its lower end, a tapered

extension-plug fitting said internally-threaded lower end, and having its lower reduced end shouldered on opposite sides, a headed pin passing through an opening in said reduced portion and held thereto by a nut, the said pin provided with a transverse opening through its head having shoulders on its opposite sides, a shouldered stud passing through the opening in said pin and held thereto by a nut, and having its shouldered end internally threaded, a split ring or frame inclosing a lens, and provided with threaded extensions projecting from its ends, said threaded projections fitting and screwing into the internally-threaded end of said stud, all substantially as shown and described.

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Witnesses:

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