R. Allen.

Knitting Mach. Needles.

No. 80,264. Patented Jul. 28. 1868.

Fig. 1.

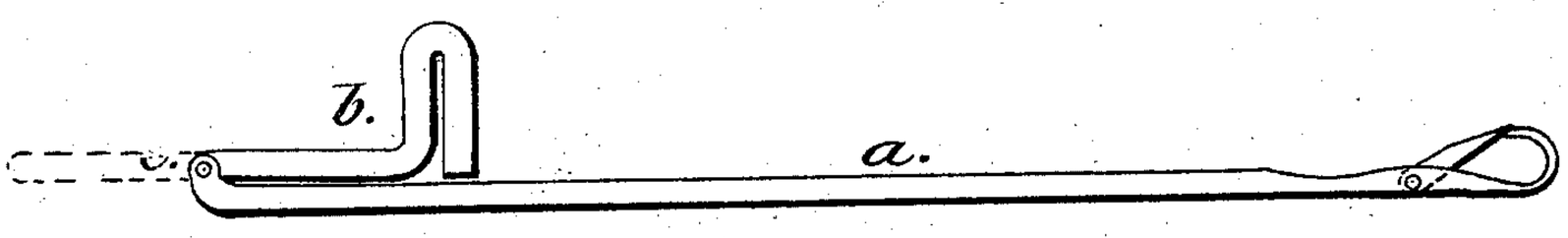


Fig. 2

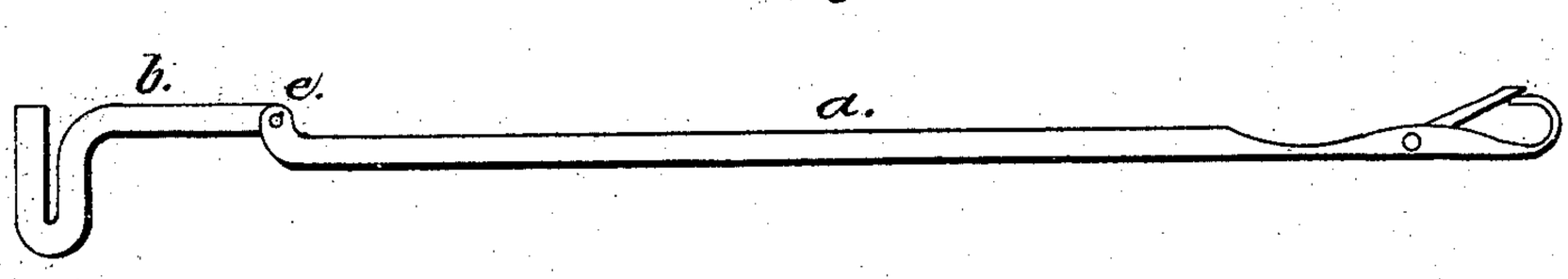


Fig. 3.

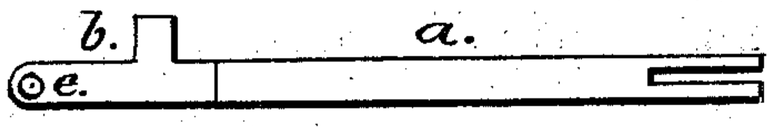
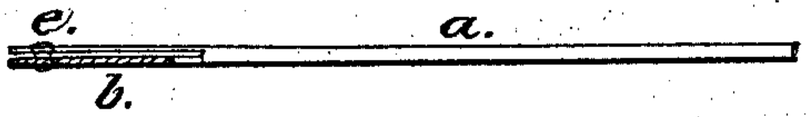


Fig. 4



Witnesses:
J. W. Land
C. B. Post

Inventor:
Ransom Allen

UNITED STATES PATENT OFFICE.

RANSOM ALLEN, OF SALEM, MICHIGAN.

IMPROVEMENT IN NEEDLE FOR KNITTING-MACHINES.

Specification forming part of Letters Patent No. **80,264**, dated July 28, 1868.

To all whom it may concern:

Be it known that I, RANSOM ALLEN, of Salem, in the county of Washtenaw and State of Michigan, (post-office, Northville, Michigan,) have invented a new and useful Improvement in Knitting-Machine Needles; and I hereby declare the following to be such a full and exact description thereof as will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, in which—

Figure 1 shows a needle with my improvement, with the hinged shank in working position. Fig. 2 shows the same with the shank turned back out of working position. Fig. 3 shows the same invention applied to the body of a needle when such body is made of sheet-steel, and the hook and working part of the needle are made separate, and soldered or otherwise fastened to the body of the needle. Fig. 4 is a plan of the same device shown in Fig. 3.

Similar letters of reference indicate corresponding parts in all of the drawings.

a represents the body of a knitting-machine needle, having a shank, *b*, hinged or pivoted to it, so that such shank *b* may either be in the position shown in Fig. 1, and thus be acted upon by the cams of a knitting-machine, or the shank may be turned back, as shown in Fig. 2, when the cams of the knitting-machine will pass over the needle without touching it.

The object of this invention is to provide a simple plan by which any portion of the needles in a machine may be made inoperative without removing the yarn or loops from such needles.

By this arrangement I am enabled to knit upon any portion of the row of needles while any other portion of the row remains inoperative, and it is especially useful in machines made under J. W. Lamb's patents of September 15, 1863, and October 10, 1865.

For example, with ordinary needles, when knitting a glove upon the Lamb knitting-machine, the loops must be thrown off of all the needles except sufficient for one finger while such finger is being knit, and then the loops for another finger must be picked up as to the needles, and such finger knit, and the same operation continued until all the fingers are done; while with my needles all the shanks are turned back except those of the needles that are to be employed to knit a particular finger, such finger is knit, and then the shanks of the needles to be employed for the next finger are turned forward into working position and the next finger is knit. The same operation is repeated until all the fingers are knit, and thus a mitten or glove may be wholly finished upon a Lamb knitting-machine with my needles without removing the article, or any part of it, from the machine.

If desired, the shank-stem may extend back of the rivet *e*, by which it is connected to the body of the needle, as shown by the dotted lines in Fig. 1, and then the shanks may be turned up sufficiently to be out of working position by a suitable mechanical device acting upon the rear or extended ends of such shanks.

The plan shown in Figs. 3 and 4 I think preferable when the machine in which they are used is so constructed as to permit of the employment of the same, as it makes a stronger needle, and one that is more durable.

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

The movable shank *b*, attached to the body of a knitting-machine needle, and operated substantially as and for the purpose herein described.

RANSOM ALLEN.

Witnesses:
J. W. LAMB,
C. B. POST.