## J. P. BARGER.

WINDING ATTACHMENT FOR LOOPING MACHINES.

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899,857.

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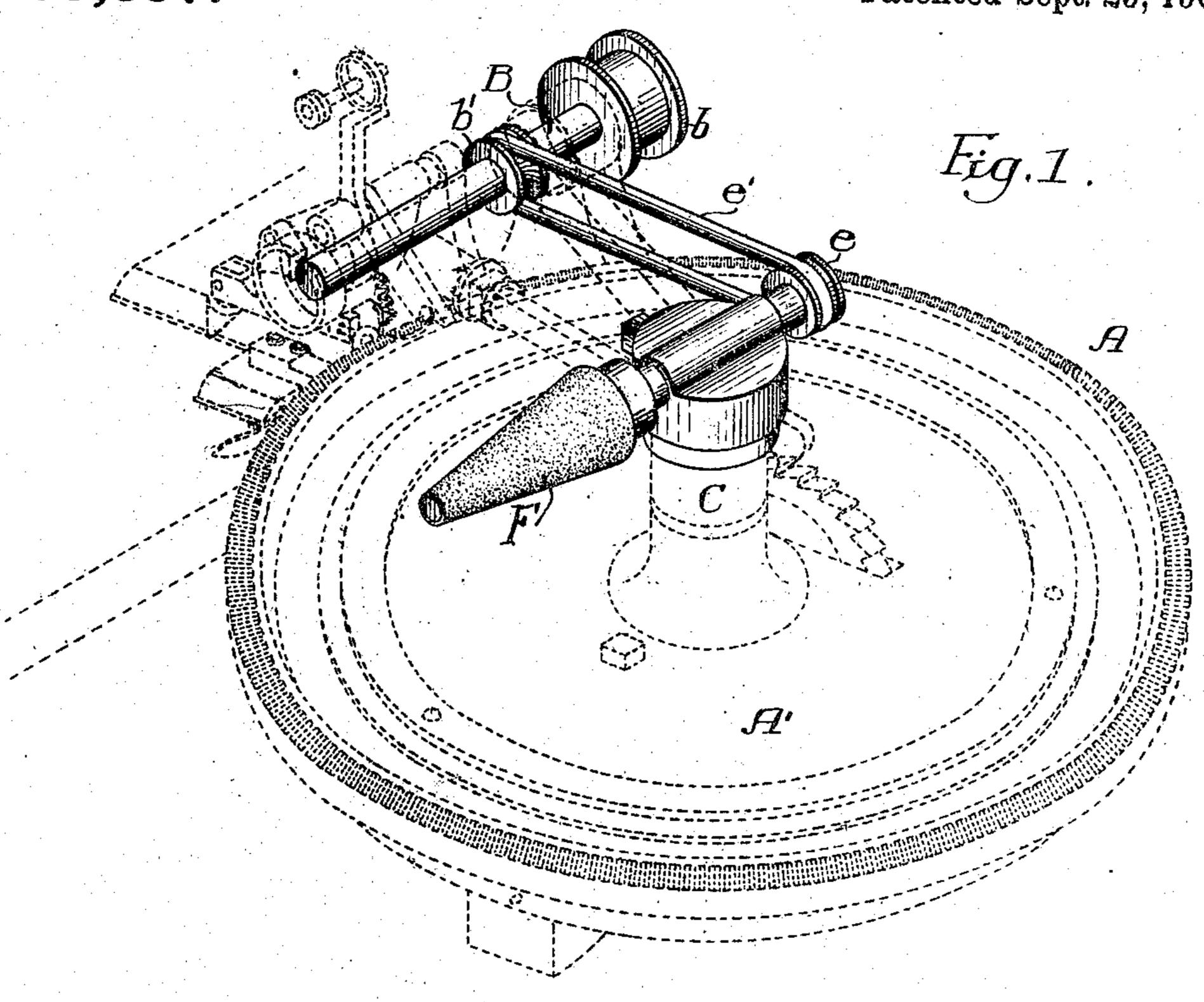
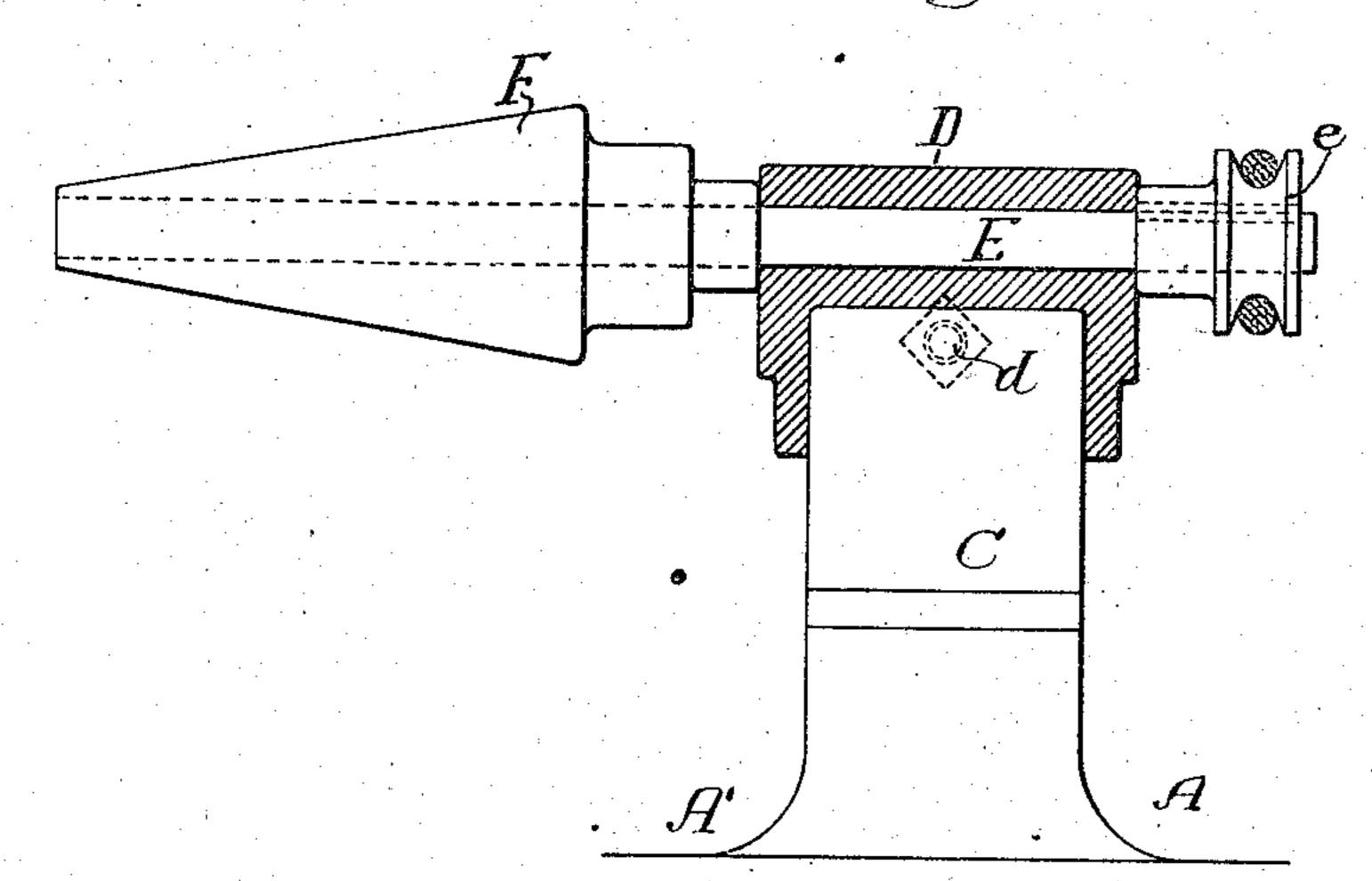


Fig. 2.



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## UNITED STATES PATENT OFFICE.

JOHN P. BARGER, OF BLOOMSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-THIRD TO CHARLES C. BARGER, OF BLOOMSBURG, PENNSYLVANIA, AND ONE-THIRD TO EDWARD BAINS, OF PHILADELPHIA, PENNSYLVANIA.

## WINDING ATTACHMENT FOR LOOPING-MACHINES.

No. 899,857.

Specification of Letters Patent.

Patented Sept. 29, 1908.

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To all whom it may concern:

Be it known that I, John P. Barger, a citizen of the United States, residing in Bloomsburg, Pennsylvania, have invented 5 certain Improvements in Winding Attachments for Looping-Machines, of which the following is a specification.

The object of my invention is to provide means for unraveling the end of a knitted 10 fabric to the looped point, dispensing with the unraveling of the thread by hand, and also dispensing with the cutters used in removing the waste courses, which are now quite common in this type of machine.

is a perspective view illustrating my invention applied to a looping machine, the looping machine, with the exception of its shaft, being shown in dotted lines; and Fig. 2, is a longitudinal sectional view of the attachment.

A is the looping machine having a dial A' and the mechanism for operating the dial.

B is the shaft of the looper driven by a belt which passes around a belt pulley b in the present instance.

C is the center bearing of the looping machine, and mounted on top of this bearing in the present instance is a cap D secured to the bearing C by a set screw or other means to firmly secure the cap to the bearing.

E is a shaft extending through the cap and having at one end a pulley e and at the other end a winding head F in the form of a cone.

35 A driving band or belt e' passes around the pulley e and around a pulley b' on the shaft B, as clearly shown in Fig. 1. The pulley e is secured to the shaft either by a key or a set screw and the winding head F is driven onto the shaft or may be secured thereto by a key or set screw.

While I have shown the head F in the form of a cone it may be of a different form if desired, but the conical shape seems to be most acceptable for the purpose, as the accumulation of thread can be readily withdrawn from the cone.

The surface of the conical head is comparatively rough and may be covered with 50 felt or rubber if found desirable.

This attachment can be readily applied to any looping machine and will save the time of the operator in unraveling the waste ends

of the fabric placed upon the points of the looper.

Heretofore loopers have been provided with attachments for cutting off waste courses from the end of the stocking or other fabric after it has been looped, but this leaves a rough edge at the loop where 60 the ends are brought together, as in the toe of a stocking, and is objectionable for this reason, consequently in the better grade of stockings the operator unravels two or three courses until the loop is reached, this is the 65 preferred method as it makes a much better finish at the end of the fabric, but operators object to the hand unraveling process as it is very tedious.

In using my improved attachment the end 70 of the waste course is placed upon the revolving conical winding head and as the head revolves the thread is caught up and wound upon it; the surface of the head may be rough or smooth for the purpose. As the 75 thread is wound upon the head it will unravel to the looping point, where it is severed. The driving band or belt, which drives the shaft carrying the head, will slip when any severe tension is placed upon the 80 thread, so that it is impossible to draw the thread past the looped course. The fabric being held at the periphery of the dial by the quills in the usual manner.

While I have shown the cap D mounted di- 85 rectly upon the center bearing C of the looper, it may be carried by a bracket extending over the looper and driven independently of the looper if desired.

1. The combination of a looping machine, a winding head, and means for driving the said head so that the waste threads can be wound upon the head, substantially as described.

2. The combination of a looping machine, a conical winding head mounted above the looper, and means for driving said head, substantially as described.

3. The combination of a looping machine 100 having a center bearing, a cap applied to the center bearing, a shaft mounted in said cap, a head on said shaft, and means for driving the head, substantially as described.

4. The combination of a looping machine 105 having a center bearing, a cap mounted on

the center bearing, a horizontal shaft mounted in the cap, a pulley mounted on one end of the shaft, a head mounted on the other end of the shaft, and a belt passing around the pulley and around the driving shaft of the looping machine, substantially as described.

5. The combination of a looping machine, a shaft mounted above the looper, means for driving said shaft from one of the shafts of the looping machine, and a conical head mounted on the driven shaft, substantially as described.

6. The combination, with a looper, of means for holding a fabric, means for reeling up yarn to unravel said fabric, and means for operating said last means.

7. The combination with a looper, of

means for reeling up yarn to unravel a fabric, and common means for operating said looper and said first means.

8. The combination, with a looper, of means for holding a fabric to be worked upon by said looper, means for reeling up yarn to unravel the selvage of the fabric, and means for simultaneously operating said looper and 25 said first means.

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

JOHN P. BARGER.

Witnesses:

S. F. Peacock, J. P. Voorhees.