

No. 639,181.

Patented Dec. 12, 1899.

W. A. NEELY.

LOOP TAKER FOR SEWING MACHINES.

(Application filed Apr. 11, 1899.)

(No Model.)

Fig. 1.

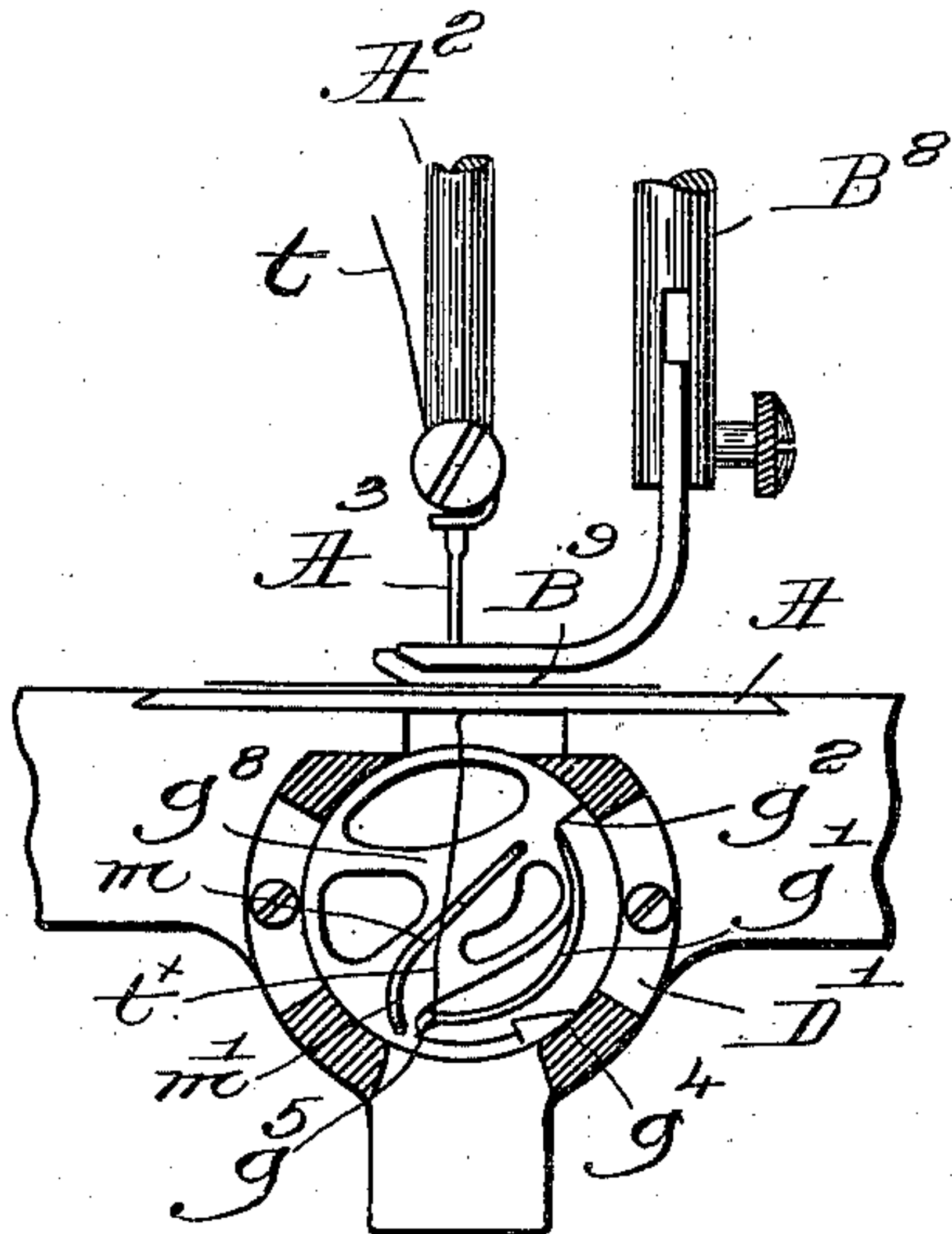


Fig. 2.

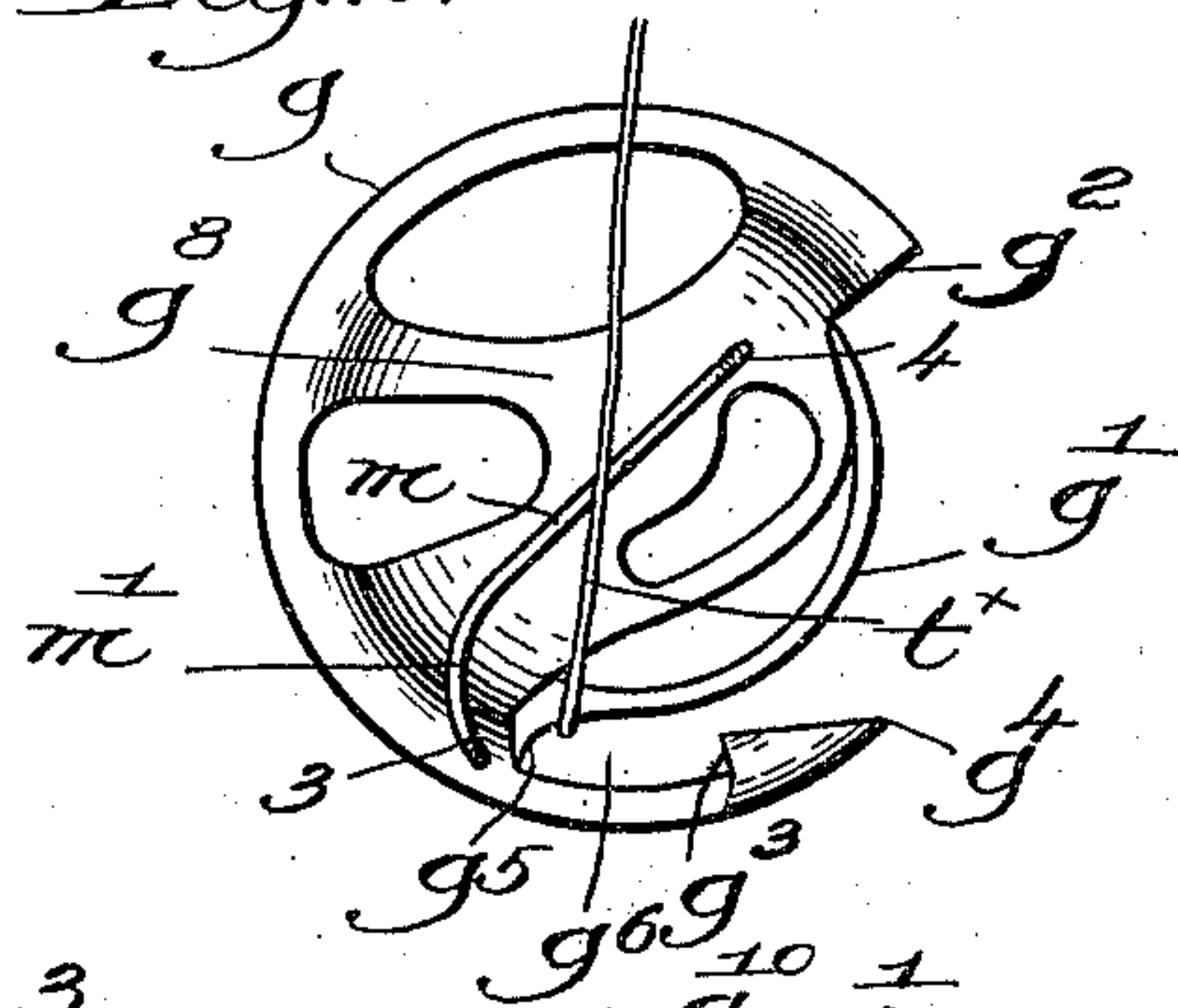
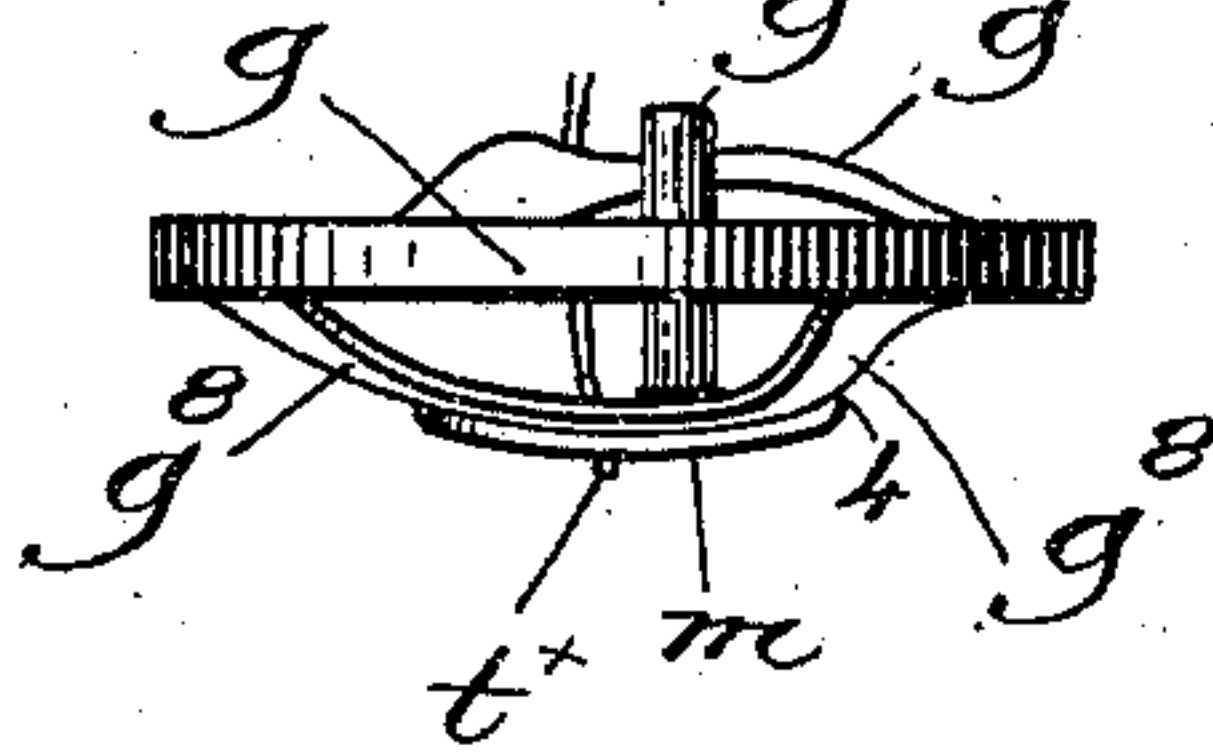


Fig. 3.



# UNITED STATES PATENT OFFICE.

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## LOOP-TAKER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 639,181, dated December 12, 1899.

Application filed April 11, 1899. Serial No. 712,649. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM A. NEELY, of  
Lynn, county of Essex, State of Massachu-  
setts, have invented an Improvement in Loop-  
5 Takers for Sewing-Machines, of which the fol-  
lowing description, in connection with the ac-  
companying drawings, is a specification, like  
letters on the drawings representing like  
parts.

10 This invention relates to circularly-mov-  
able loop-takers for sewing-machines; and it  
has for its object the production of means for  
preventing clogging or loading of the loop-  
taker when operating on cemented or rubber  
15 goods and the like.

In sewing material which has had cement  
applied thereto and also with rubber goods  
or material having more or less rubber in-  
corporated with or applied thereto great diffi-  
20 culty has been experienced in using machines  
provided with a circularly-moving loop-taker  
to enter and open a loop of needle-thread, as  
the passage of the needle through the work  
causes particles of cement, rubber, &c., to ad-  
25 here to the needle-thread, and such particles  
collect on and adhere to the loop-taker to  
such an extent that its frequent removal for  
cleaning is necessary.

By my present invention the side of the  
30 loop of needle-thread is engaged and held  
away from the body portion of the loop-taker  
as the latter passes through the loop in the  
formation of the stitch, so that the deposition  
of foreign matter on the loop-taker is pre-  
35 vented.

Figure 1 represents a sufficient portion of a  
sewing-machine to be understood with a cir-  
cularly-movable loop-taker embodying one  
form of my invention. Fig. 2 is a rear side  
40 elevation, enlarged, of the loop-taker shown  
in Fig. 1, showing a loop of needle-thread as  
partially surrounding the loop-taker; and  
Fig. 3 is a top or plan view of the loop-taker  
shown in Fig. 2.

45 I have herein shown my invention as ap-  
plied to a loop-taker substantially such as  
shown in United States Patent No. 328,165,  
dated October 13, 1885, and in Fig. 1 the bed-  
plate A, needle-bar A<sup>2</sup>, eye-pointed needle A<sup>3</sup>,

carrying the needle-thread *t*, presser-foot bar 50  
B<sup>8</sup>, presser-foot B<sup>9</sup>, and the loop-taker guide  
D' may be and are substantially as shown in  
said patent.

The loop-taker is herein shown as composed  
of a partial hoop *g*, Fig. 2, connected by a 55  
bridge-piece *g'*, extended from the heel *g*<sup>2</sup> to  
and joining the hoop a short distance back of  
the shoulder *g*<sup>3</sup> at the rear of the point *g*<sup>4</sup>, the  
junction of the bridge-piece and hoop form-  
ing a shoulder *g*<sup>5</sup> with a recess *g*<sup>6</sup> between it 60  
and the shoulder *g*<sup>3</sup>, all as in said patent.

The loop-taker has a concavo-convex back  
plate *g*<sup>8</sup>, provided with a stud *g*<sup>10</sup>, (see Fig. 3,) 65  
extended laterally from the concave face of  
the back plate to support the bobbin-case.  
(Not shown.)

The loop-taker receives circular motion in  
any suitable manner, the same forming no  
part of my invention.

I have herein shown the loop-taker pro- 70  
vided with a guard, shown as a thin elon-  
gated rib *m*, of brass or other suitable and  
preferably soft metal, mounted on the convex  
face of the body or plate *g*<sup>8</sup> and of a sufficient  
height to engage the side of the loop *t*<sup>x</sup> of 75  
needle-thread and hold it away from or out  
of contact with the adjacent portion of the  
body of the loop-taker as the latter moves  
through the loop. The guard prevents the  
loop side from resting upon and dragging over 80  
the convex surface of the plate *g*<sup>8</sup> and effectually  
overcomes the transfer of cement, rub-  
ber, or other foreign matter from the thread  
to the loop-taker, so that no difficulty what-  
ever is experienced from this source in sew- 85  
ing cemented or gummy fabric.

I prefer to so locate the guard pin or rib *m*  
on the loop-taker that it will substantially  
cross the axis of rotation of the latter, as here-  
in shown, (see Figs. 1 and 2,) the guard ex- 90  
tending from near the heel *g*<sup>2</sup> across the back  
plate toward the shoulder *g*<sup>5</sup> at the root of the  
point *g*<sup>4</sup>, and in order to more easily coöper-  
ate with the loop the end of the guard may  
be slightly curved, as at *m'*, in the direction 95  
of the point. At each end the guard tapers  
or merges gradually into the face of the plate,  
as at 3 4, Fig. 2, to prevent any derangement



of the loop when the side thereof is engaged by the guard.

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

1. A circularly-movable loop-taker having a point and a heel, a concavo-convex back plate, and an elongated guard-rib on the exterior of the back plate and crossing the axial center of the loop-taker to engage and hold the side of the loop from contact therewith.

2. A circularly-movable loop-taker having a point and a heel, a concavo-convex back plate, and a guard-rib on the exterior of the back plate, extended in a substantially straight line from near the heel across the axial center of the loop-taker to the root of the point and curved toward the latter.

3. A loop-taker having a circularly-curved periphery terminating in a heel and a point, a concavo-convex back plate provided at its inner side with a stud, and a guard-rib ex-

tended substantially diametrically across the convex surface of the back plate from near the heel toward the root of the point.

4. A circularly-movable loop-taker having a point and a heel, a concavo-convex back plate, and a thin guard-rib on the convex face of the back plate, extended from near the heel across the axial center of the loop-taker.

5. A circularly-movable loop-taker having a point and an externally-convex back, and a thin guard-rib on the back crossing the axial center of the loop-taker to engage the side of the loop after the same has been entered by the point, the ends of the rib gradually rising from the back.

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

WILLIAM A. NEELY.

Witnesses:

JOHN C. EDWARDS,  
AUGUSTA E. DEAN.