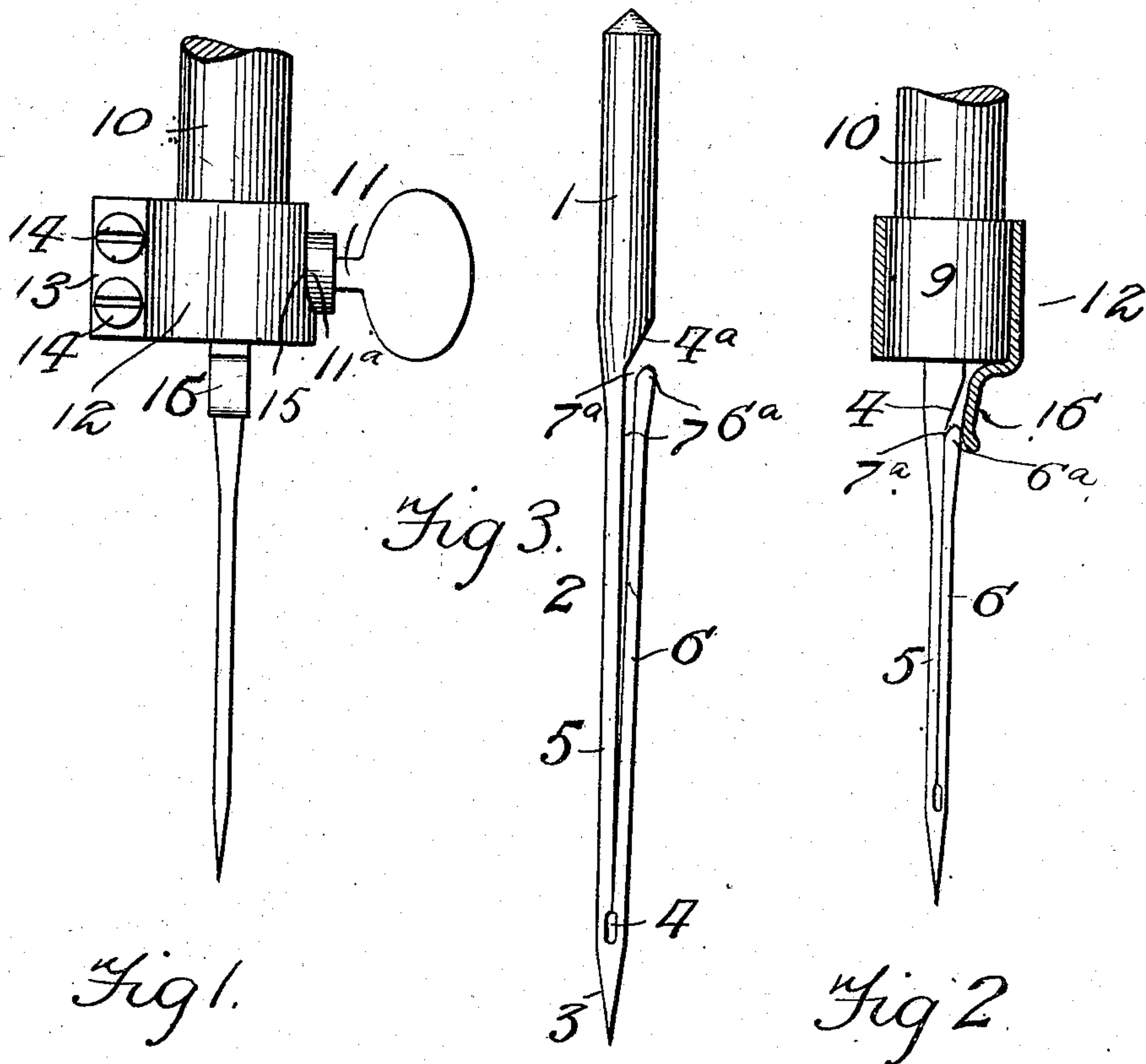


A. G. BRADLEY.
SEWING MACHINE NEEDLE.
APPLICATION FILED FEB. 19, 1908.

899,381.

Patented Sept. 22, 1908.



Witnesses

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UNITED STATES PATENT OFFICE.

ALICE G. BRADLEY, OF EDWARDSVILLE, ILLINOIS.

SEWING-MACHINE NEEDLE.

No. 899,381.

Specification of Letters Patent.

Patented Sept. 22, 1908.

Application filed February 19, 1908. Serial No. 416,738.

To all whom it may concern:

Be it known that I, ALICE G. BRADLEY, a citizen of the United States, residing at Ed-
wardsville, in the county of Madison and
5 State of Illinois, have invented new and use-
ful Improvements in Sewing-Machine Need-
les, of which the following is a specification.

This invention relates to improvements in
sewing machine needles, the object of the in-
10 vention being to provide an improved con-
struction of longitudinally-slitted needle and
means for holding the movable side of the
split needle closed and which will readily
yield to adapt the needle to be easily threaded.

15 The invention consists of the features of
construction, combination and arrangement
of parts hereinafter fully described and
claimed, reference being had to the accom-
panying drawing, in which:—

20 Figure 1 is a front elevation showing the
application of the needle to the lower end of
the needle bar. Fig. 2 is a side view of the
same, with the needle clamp shown in verti-
cal section. Fig. 3 is a side view of the nee-
5 dle on an enlarged scale. Fig. 4 is a horizon-
tal section through the clamping device.

Referring to the drawing, the numeral 1
designates the butt of the needle, 2 its shank,
3 the point of the needle, and 4 the eye or
0 thread opening disposed in the shank adja-
cent its point. In accordance with my in-
vention, the shank 2 is longitudinally slit on
a central line intersecting the eye 4, thus sepa-
rating the shank into a body portion 5 inte-
5 gral at its upper end with the butt 1 and a
movable or flexible arm or portion 6, which
is adapted, through its resiliency, to spring at
its upper or free end away from the portion 5,
leaving an intervening space 7 through which
10 the thread may be passed downwardly into the
eye 4, thus enabling the needle to be threaded
in a convenient manner without the neces-
sity of resorting to the delicate operation of
passing the end of the thread transversely
through the comparatively small eye 4, as is
necessary with needles of ordinary con-
struction.

Above the free end of the arm 6, the base
of the butt 1 is beveled or cut away at an in-
cline, as at 4^a, and the adjacent portion of
the arm is beveled or rounded, as at 6^a, thus
forming an intervening flaring guide entrance
7^a for the ready introduction of the thread
into the space 7. The butt 1 is adapted to
be inserted in the usual manner into the re-
ceiving socket 9 at the lower end of the nee-

dle bar 10, which is provided with a set-
screw 11 to clamp the butt therein, surround-
ing which socket is a split clamping ring or
collar 12. This ring or collar, which is made 60
of suitable spring metal, is provided at its
free ends with ears 13 adapted to receive ad-
justing screws 14, by which it may be fitted
in position firmly enough to insure retention
while easily enough to permit of adjustment. 65

At the side opposite the ears 13 the ring or
band is formed with a slot or recess 15, open-
ing through its upper edge, for the passage
of the boss 11^a through which the set-screw
11 extends; whereby the collar may be ap- 70
plied and removed without interference from
the boss or screw. Formed upon the collar
or band and projecting downwardly there-
from is a spring guard finger 16, which en-
gages the upper end of the arm or movable 75
portion 6 of the shank and holds said portion
or arm, thus preventing upward movement
of the thread inserted in the eye 4 and keep-
ing the parts of the shank in close abutting
relation for the free passage of the needle 80
without interference through the goods. The
free end of this finger is preferably bent or
curved outwardly from the arm 6 for passage
of the thread to the entrance 7^a.

It will be understood that the spring finger 85
16 normally holds the spring arm 6 of the
needle closed, as shown in Fig. 2, and that
the construction of the collar permits of the
relaxation of the set screw 11 for disconnec-
tion of the needle and substitution of a differ- 90
ent needle therefor without interfering with
the collar, and without the necessity of re-
moving or adjusting the same. In the op-
eration of threading the needle, the thread is
first forced upward between the outwardly 95
bent end of the finger 16 and the upper end
of the arm 6 into the space between said fin-
ger and the beveled surface 4^a, and then
forced downward through the flaring en-
trance 7^a into the passage 7, the finger 16 100
being resilient enough to permit the arm 6
to yield outward under the pressure of the
thread, and finally the thread is moved
downward through the passage 7 into the
eye 4. By this construction and mode of op- 105
eration of the parts, it will be apparent that
the needle may be much more expeditiously
and conveniently threaded than needles of
ordinary construction, and may be readily
threaded by those having impaired eyesight, 110
or even the blind. The needle and collar
may further be employed upon the needle

bars of machines of any ordinary construction.

Having thus fully described the invention, what is claimed as new is:—

- 5 The combination with a needle bar having a socket, and a clamping screw projecting at right angles therefrom, a needle adapted to fit within said socket and to be clamped by said screw, said needle being provided with
10 an eye and a shank split longitudinally to form a free portion and a passage leading to said eye, a split collar inclosing said socket and provided with a notch or recess opposite

its split portion for the passage of the screw, said recess opening through the upper edge 15 thereof, and a spring finger on said collar adapted to engage and hold said free portion of the needle closed against the fixed portion of the shank.

In testimony whereof I affix my signature 20 in presence of two witnesses.

ALICE G. BRADLEY.

Witnesses:

E. B. GLASS,
M. B. KANE.