

No. 872,217.

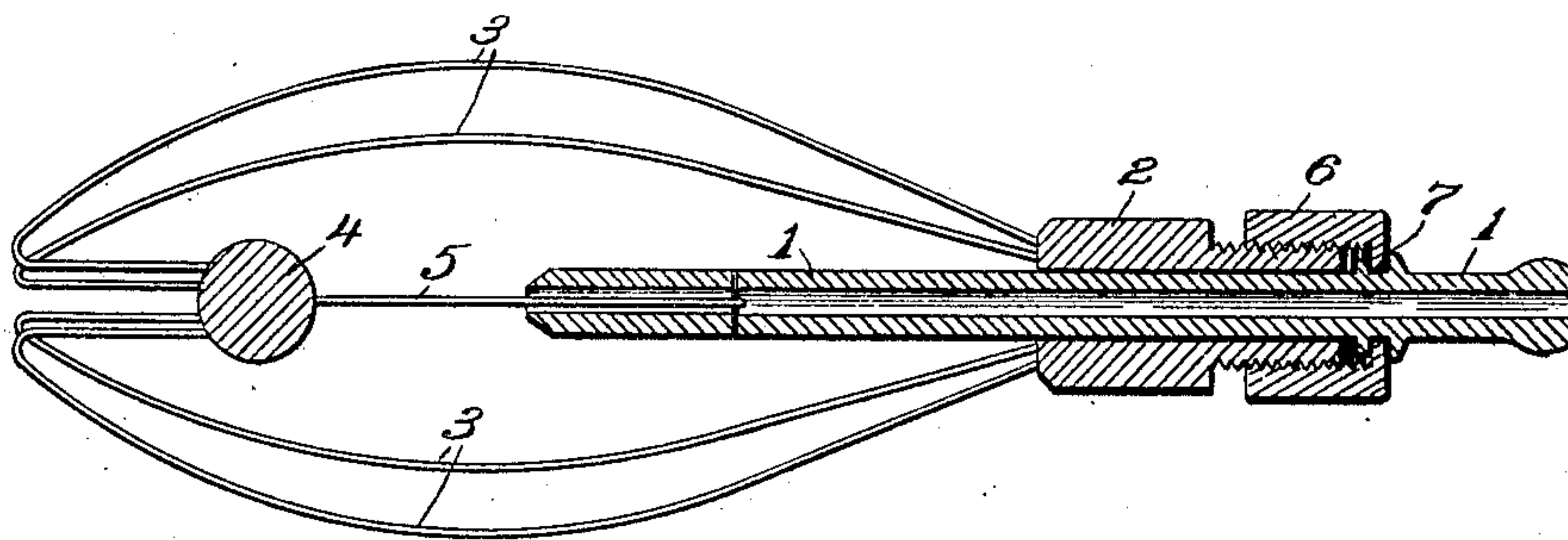
PATENTED NOV. 26, 1907.

A. E. BONESTEEL.

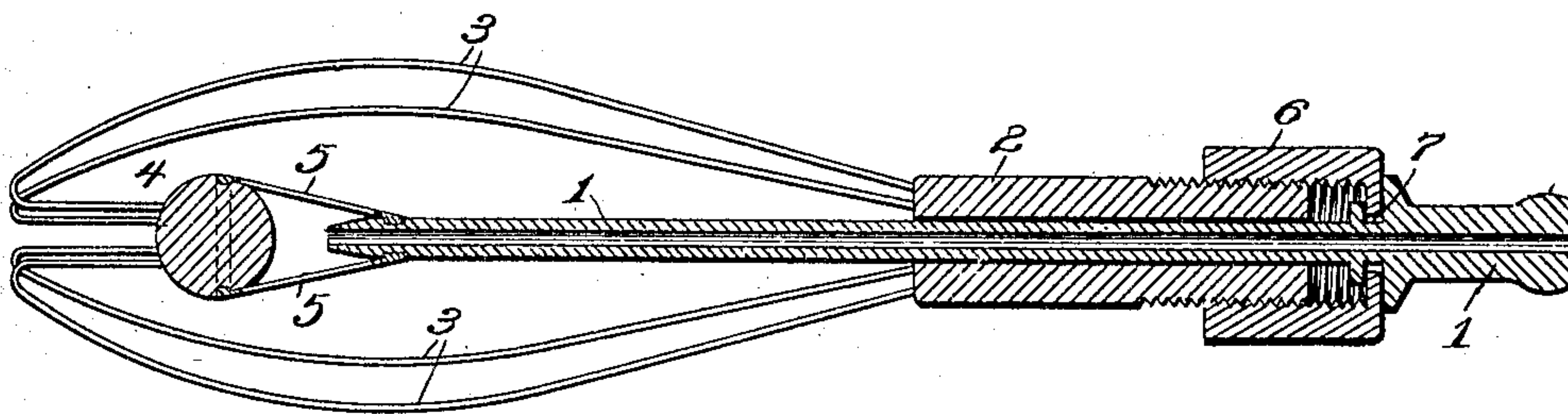
SYRINGE.

APPLICATION FILED FEB. 4, 1907.

*Fig. 1.*



*Fig. 2.*



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## SYRINGE.

No. 872,217.

Specification of Letters Patent.

Patented Nov. 26, 1907.

Application filed February 4, 1907. Serial No. 355,617.

*To all whom it may concern:*

Be it known that I, ARTHUR E. BONE-  
STEEL, a citizen of the United States of  
America, residing at Denver, in the county  
5 of Denver and State of Colorado, have in-  
vented certain new and useful Improve-  
ments in Syringes, of which the following is  
such a full, clear, and exact description as  
will enable others skilled in the art to which  
10 it appertains to make and use the same.

This invention relates to improvements  
in syringes and seeks particularly to im-  
prove the construction and increase the  
efficiency of the syringe shown in the Patent  
15 No. 683,099, granted to me September 24,  
1901.

The present invention consists in certain  
novel features of the device illustrated in  
the accompanying drawings as will be here-  
inafter first fully described and then par-  
ticularly pointed out in the claim.

In the drawings, Figure 1 is a longitudinal  
sectional view of a syringe embodying the  
present improvement, and Fig. 2 is a similar  
25 view showing a modification.

The nozzle, 1, is fitted in the end of the  
usual bulbed tube which is not shown in the  
present instance as it forms no part of the  
invention. Fitted loosely on the nozzle  
30 is a sleeve or collar, 2, which is provided  
with external threads at one end and has the  
expansible arms, 3, secured to its other end.  
These arms extend outward from the collar  
and have their outer ends doubled inward  
35 on themselves as shown in my former patent,  
a spherical guard, 4, being secured to the  
extremities of said inwardly-turned ends.  
A small rod, 5, is secured to the said guard  
and extends therefrom into the mouth of  
40 the nozzle where it is secured, the guard  
being thus connected to the nozzle so as to  
always be directly in alinement with the  
same and at a fixed distance therefrom.  
Mounted on the threaded end of the sleeve 2  
45 is a nut, 6, which engages an annular groove,  
7, on the rear enlarged portion of the nozzle  
so that when the nut is turned the sleeve will  
be caused to move longitudinally of the  
nozzle and thereby expand the arms as will  
50 be readily understood.

In the modified construction shown in  
Fig. 2, the connecting rod 5 is passed dia-  
metrically through the guard and its ends  
are then bent back to the nozzle and secured  
to the outer side of the same. This arrange- 55  
ment is a cheaper construction than that  
shown in Fig. 1 and leaves the passage of  
the nozzle entirely unobstructed and may  
be preferred in many cases.

The operation of the syringe will be readily 60  
understood. After insertion in the vagina,  
the nut 6 is rotated so as to cause a longitu-  
dinal movement of the sleeve which in  
turns causes an expansion of the arms inas-  
much as the guard is connected immovably 65  
to the nozzle and the ends of the arms are  
fixed to the guard. The present construc-  
tion maintains the guard in a fixed relation  
to the nozzle directly in line with the mouth  
thereof so that an efficient spraying and 70  
scattering of the medicine is accomplished.  
Furthermore, the arms are held positively  
in their expanded positions so that there  
is no premature collapsing of the same.

Having thus described my invention, what 75  
I claim and desire to secure by Letters-  
Patent is:—

A vaginal syringe consisting of a nozzle, a  
sleeve mounted thereon, means for causing  
the sleeve to move longitudinally upon the 80  
nozzle, a plurality of expansible arms se-  
cured to the sleeve, extending beyond the  
end of the nozzle and having their outer  
ends doubled inward on themselves, a  
spherical guard secured to the said inwardly- 85  
turned ends of the expansible arms in axial  
alinement with the nozzle, and a connecting-  
rod having its opposite ends fixedly secured to  
the end of the nozzle and to the guard where-  
by the guard will be held permanently in 90  
axial alinement with the nozzle and at a  
fixed distance therefrom.

In testimony whereof, I have signed this  
specification in the presence of two sub-  
scribing witnesses.

ARTHUR E. BONESTEEL.

Witnesses:

A. R. MORRISON,  
FRANK KRAMER.