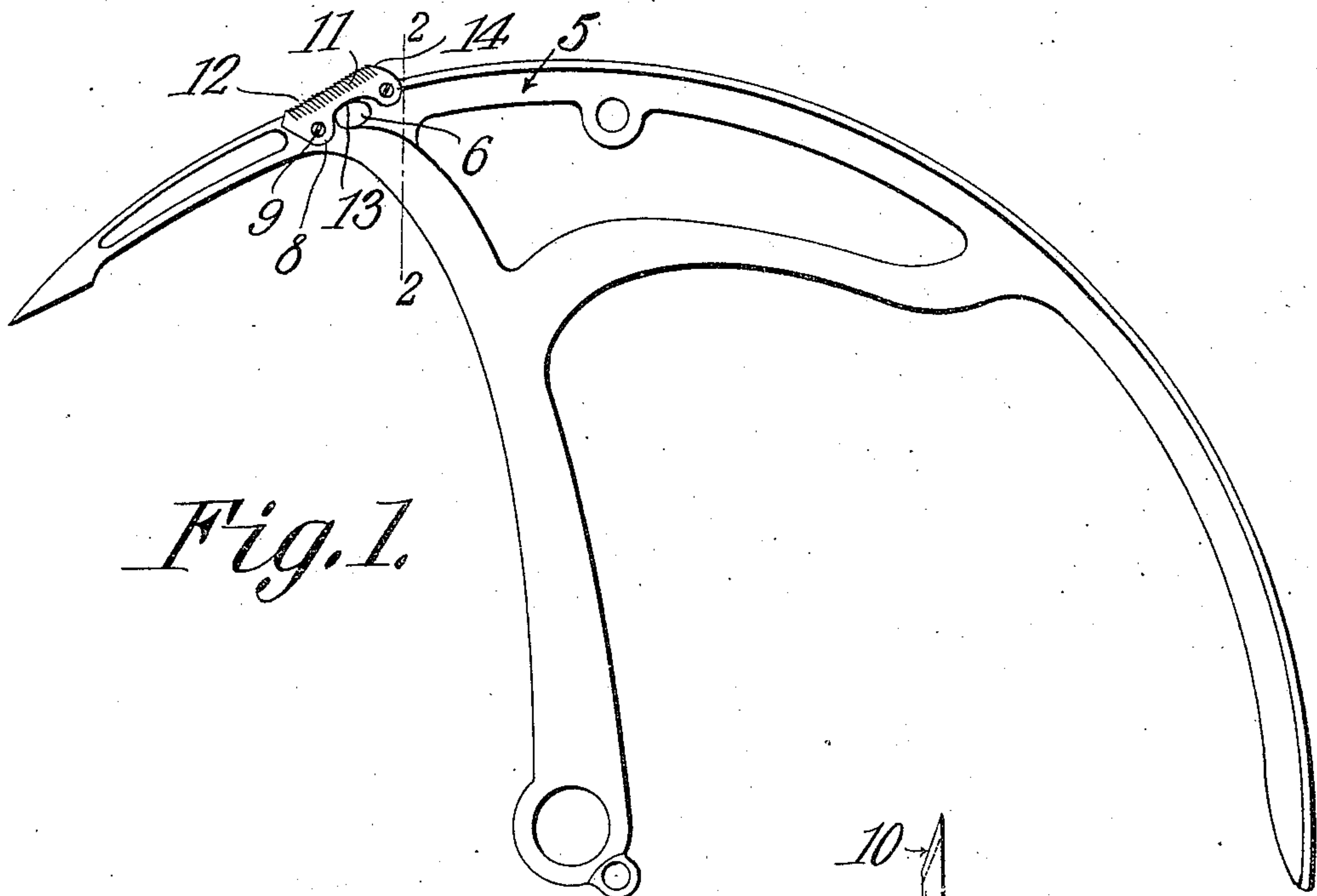


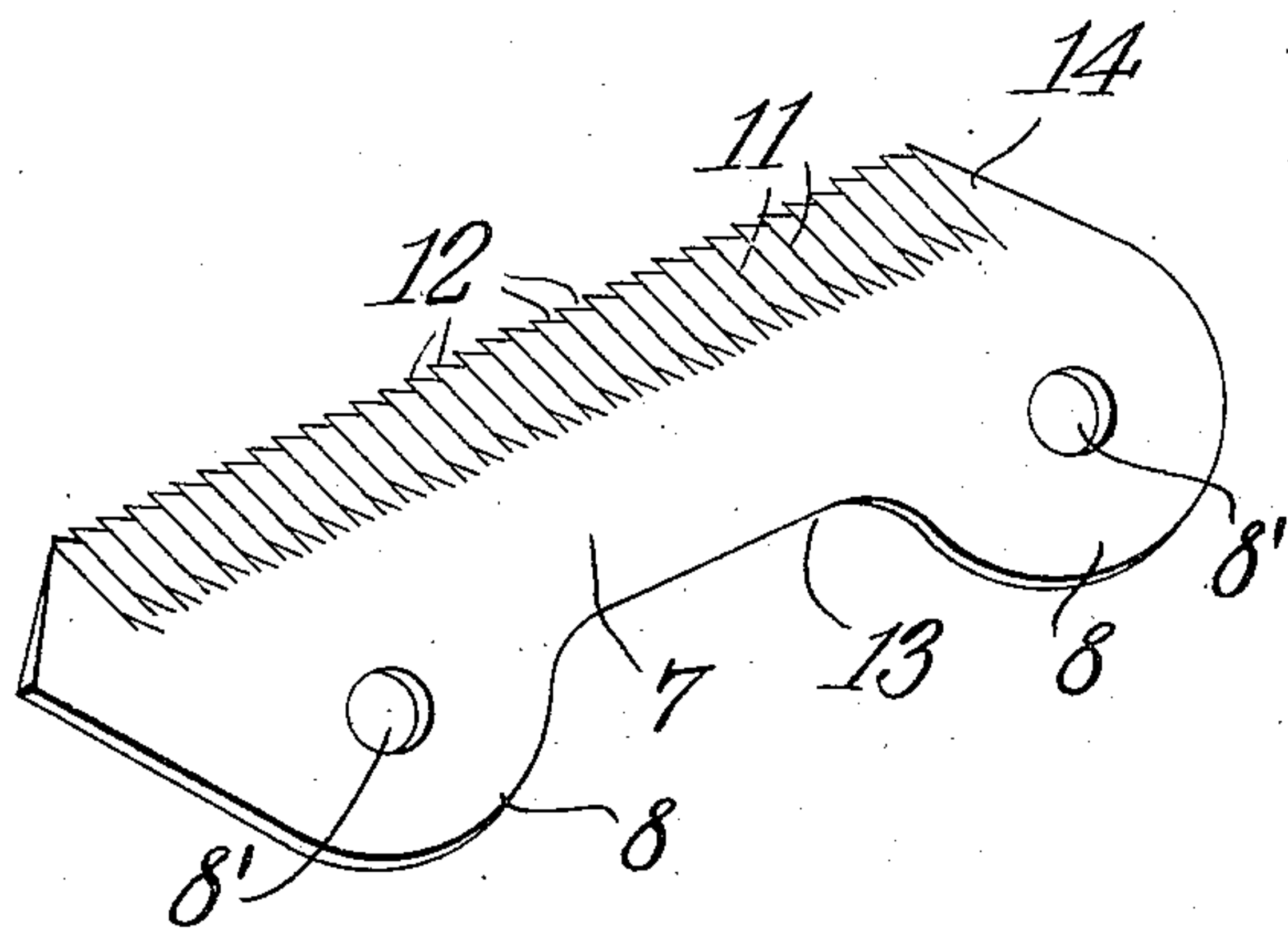
No. 855,539.

PATENTED JUNE 4, 1907.

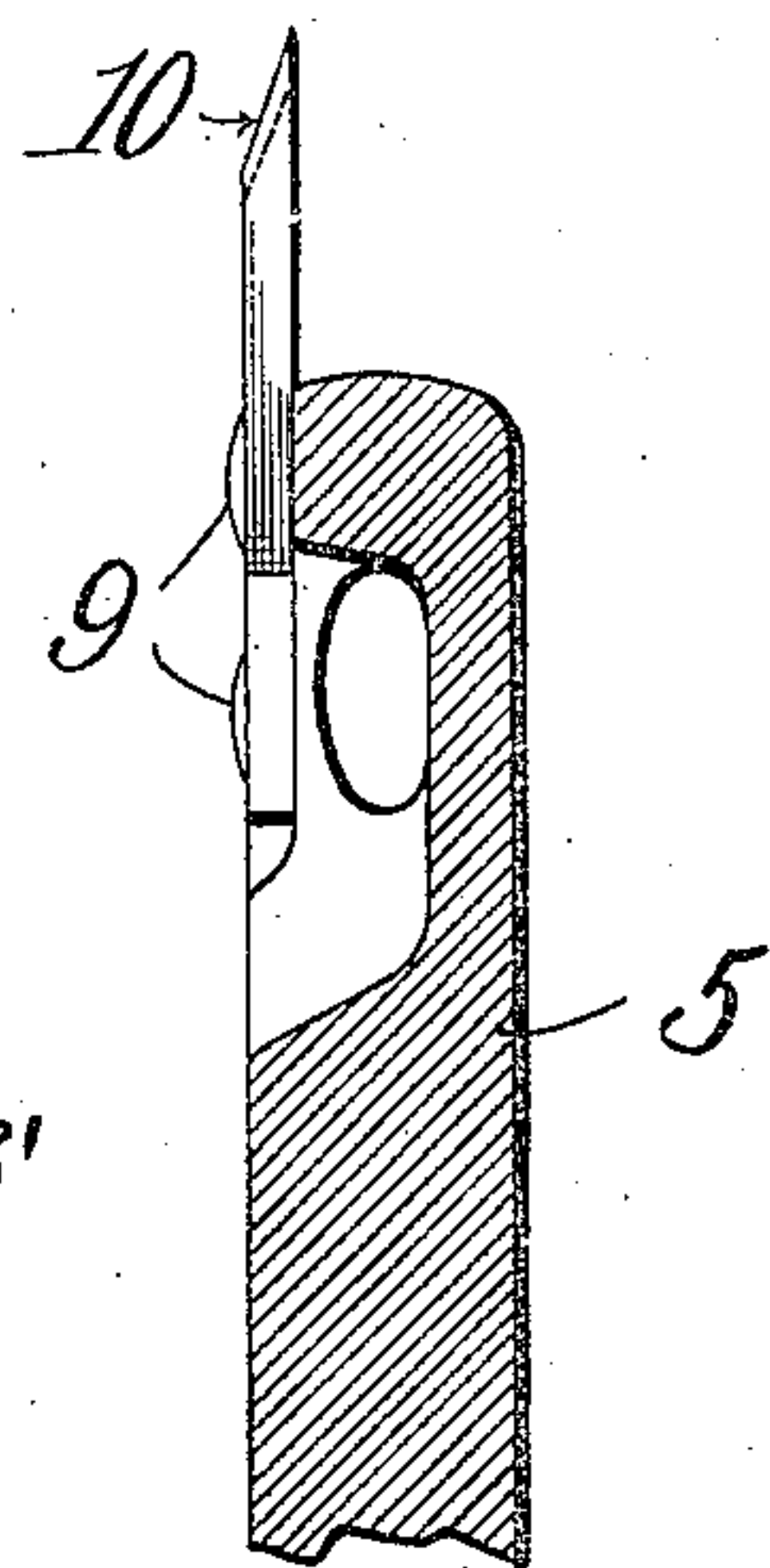
S. SMITH.  
HARVESTER NEEDLE.  
APPLICATION FILED OCT. 26, 1906.



*Fig. 1.*



*Fig. 3.*



*Fig. 2.*

WITNESSES:

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*L. N. Tucker*

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ATTORNEYS



# UNITED STATES PATENT OFFICE.

SAMUEL SMITH, OF WABASSO, MINNESOTA.

## HARVESTER-NEEDLE.

No. 855,539.

Specification of Letters Patent.

Patented June 4, 1907.

Application filed October 26, 1906. Serial No. 340,749.

*To all whom it may concern:*

Be it known that I, SAMUEL SMITH, a citizen of the United States, residing at Wabasso, in the county of Redwood and State of Minnesota, have invented a new and useful Harvester-Needle, of which the following is a specification.

This invention relates to needle-attachments for self-binders and has for its object to provide means for preventing the needle from sticking or clogging in the material when cutting wet or tangled grain.

A further object of the invention is to provide a knife or cutting blade designed for attachment to the needle arm of a self-binder and having its cutting edge serrated thereby to cut or sever the grain as the needle travels through the latter.

A still further object of the invention is to generally improve this class of devices so as to increase their utility, durability and efficiency as well as to reduce the cost of manufacture.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, and illustrated in the accompanying drawings, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification: Figure 1 is a side elevation of a needle-bar provided with a cutting blade constructed in accordance with my invention. Fig. 2 is an enlarged sectional view taken on the line 2—2 of Fig. 1. Fig. 3 is a perspective view of the cutting blade detached.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved device is especially designed for attachment to the needle-arm of a self-binder and by way of illustration is shown applied to a needle-arm of the ordinary construction in which 5 designates the needle-arm and 6 the opening formed therein for the reception of the binding cord or twine.

The attachment consists of an elongated

plate or body portion 7 having one longitudinal edge thereof provided with spaced lugs 8 having perforations 8' formed therein for the reception of screws or similar fastening devices 9 whereby the cutter may be readily attached to one side of the needle-arm. The opposite longitudinal edge of the plate 7 is inclined or beveled, as indicated at 10 and provided with transverse serrations 11 forming a plurality of cutting teeth 12 adapted to cut or sever the grain as the needle-arm travels through the latter and thus prevent the needle from sticking or clogging in the material.

The plate or body portion is preferably attached to the needle-arm adjacent the twine-receiving opening 6, there being a recess or depression 13 formed in one edge of the plate between the lugs 8 to permit the ready introduction and removal of the twine.

Attention is called to the fact that one end of the plate or body portion 7 is extended above the adjacent edge of the arm 5, as indicated at 14, while the opposite end thereof is preferably disposed flush with the upper surface of the needle-arm so that the teeth 12 will cut or shear the grain when the needle-arm is traveling in either direction.

In operation the needle-arm passes through the grain in a curved plane and the knife is brought to bear upon and gradually severs the resisting or obstructed grain thus permitting the arm to readily penetrate wet and tangled grain without danger of sticking in the latter and thus stopping the machine.

The cutters may be made in different sizes and shapes and attached to either side of the needle-arm.

From the foregoing description it will be seen that there is provided an extremely simple, inexpensive and efficient device admirably adapted for the attainment of the ends in view.

Having thus described the invention what is claimed is:

The combination with a needle-arm having a twine-receiving opening, of a plate secured to one side of the needle-arm and provided with spaced perforated lugs defining a recess adapted to register with the twine-receiving opening, one longitudinal edge of



the plate being extended above the adjacent  
edge of the needle-arm and serrated trans-  
versely to form spaced cutting teeth, and fas-  
tening devices passing through the perfora-  
5 tions in the lugs for securing the plate to said  
needle-arm.

In testimony that I claim the foregoing as

my own, I have hereto affixed my signature  
in the presence of two witnesses.

SAMUEL SMITH.

Witnesses:

J. S. TEWLE,

K. D. BENNETT.