

No. 636,728.

Patented Nov. 7, 1899.

G. J. KINDEL.
TAPE NEEDLE.

(Application filed May 24, 1899.)

(No Model.)

FIG. 1

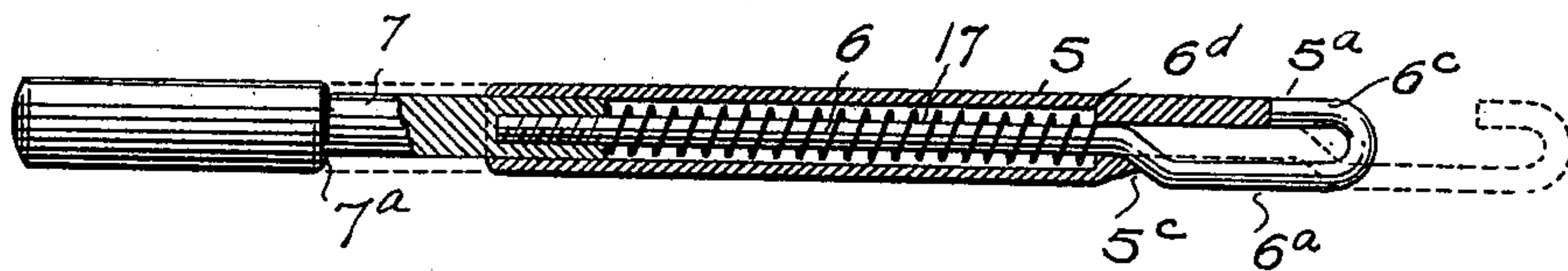


FIG. 2

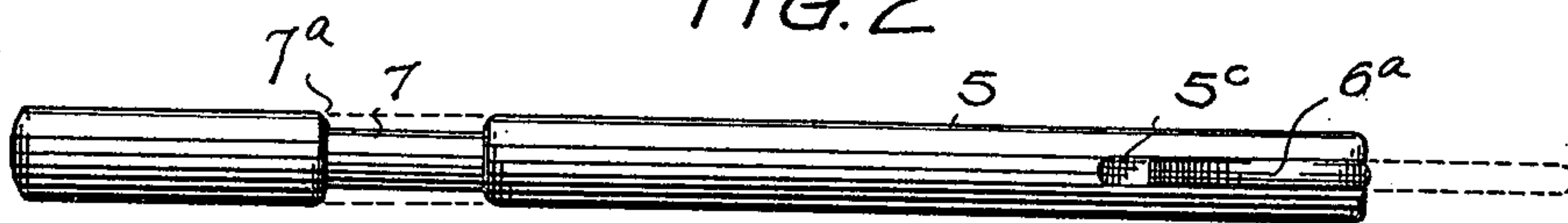


FIG. 3

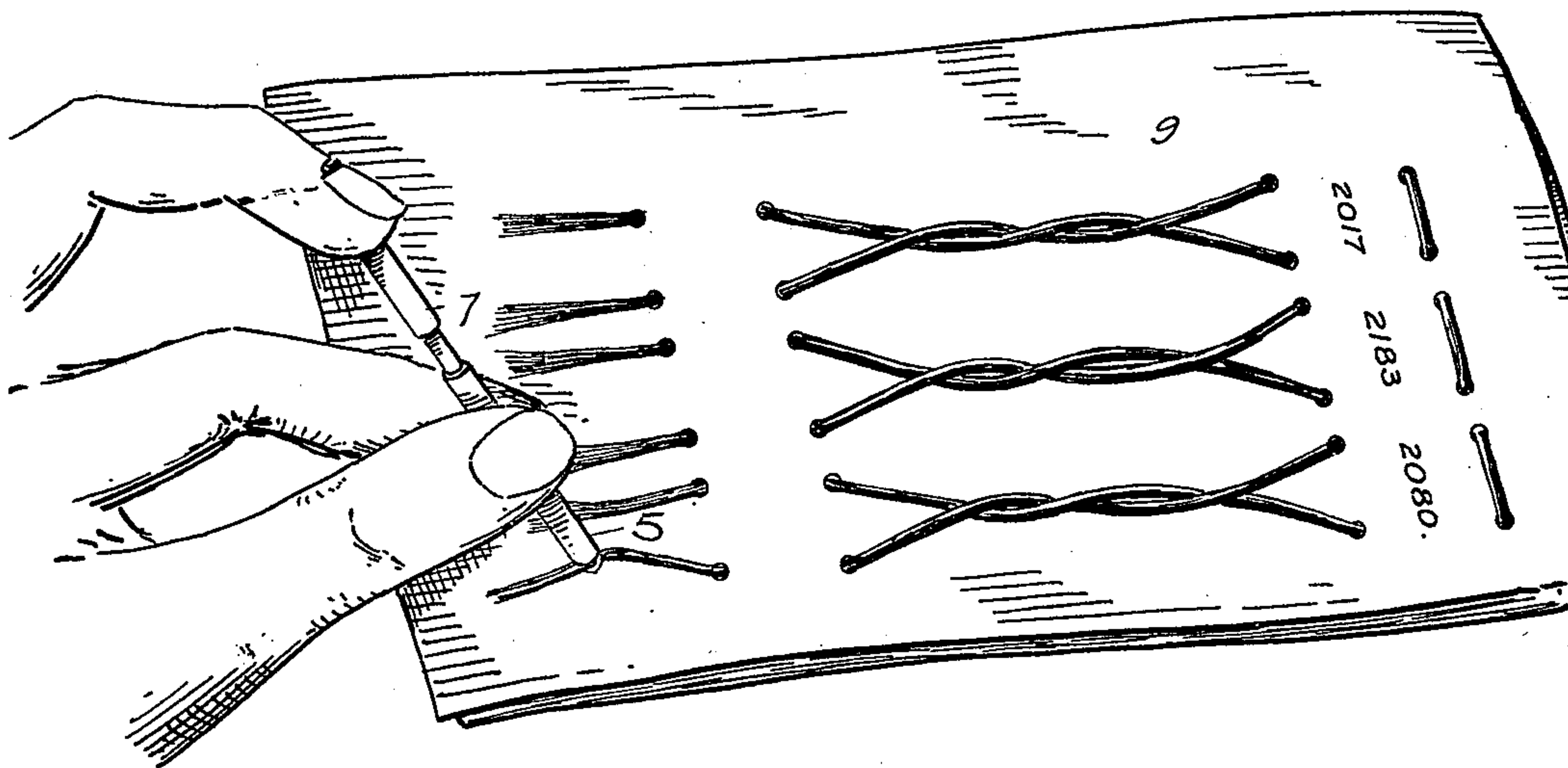
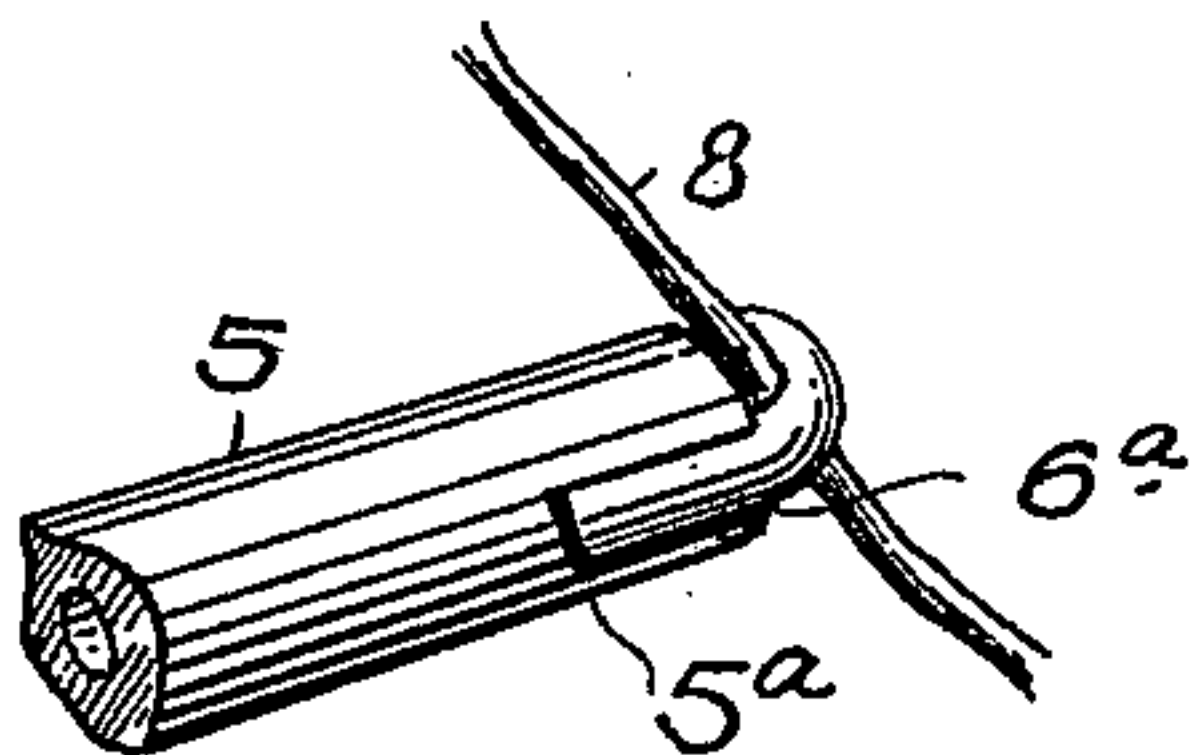


FIG. 4

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TAPE-NEEDLE.

SPECIFICATION forming part of Letters Patent No. 636,728, dated November 7, 1899.

Application filed May 24, 1899. Serial No. 718,123. (No model.)

To all whom it may concern:

Be it known that I, GEORGE J. KINDEL, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Silk-Threading Hooks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to an improved silk hook and threader specially designed for passing skeins of silk through the perforations of a perforated silk-holding card, but which may be employed to equal advantage in many other relations.

The invention will now be described in detail, reference being made to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a longitudinal section taken through my improved silk-threading hook shown on an enlarged scale. Fig. 2 is an elevation of the same shown in a different position. Fig. 3 is a fragmentary perspective view of the hooked extremity of the threader shown with a skein of silk passed through the hook. Fig. 4 illustrates the device in use.

Similar reference characters indicating corresponding parts in the views, let the numeral 5 designate a tube provided with slots 5^a and 5^c, formed at one extremity thereof. In this tube is located a small rod 6, provided with a portion 6^a, bent out of line with the body of the hook and adapted to engage the slot 5^c, and a hook 6^b, adapted to engage the slot 5^a. This construction prevents the rod from turning in the tube and holds it in the operative position at all times. Located within the tube 5 and surrounding the rod 6 is a coil-spring 17, one extremity of which engages a shoulder 6^d, formed on the tube, while the other extremity engages a plunger 7, inserted in the tube and screwed onto the threaded extremity of the rod, the plunger having a threaded socket for the purpose. This plunger is provided with a shoulder 7^a, which is adapted to engage the adjacent extremity of the tube and prevent the locked extremity of the rod from being thrust outwardly too far.

In using the device the plunger is forced toward the tube until the shoulder 7^a engages the adjacent tube extremity. The hook extremity of the rod will then be in the position shown by dotted lines in Figs. 1 and 2. When in this position, the skein of silk 8 is caught by the hook, after which the plunger is released and returned by the spring to the position shown in Fig. 3. The threader is then passed through the perforations of the card 9, whereby the silk-skeins are mounted thereon, as shown in Fig. 4. The numbers on the card indicate the numbers of the respective skeins of silk.

It must be observed that the bend 6^a of the rod does not leave the slot 5^c of the tube even when the rod is extended to the dotted-line position shown in Figs. 1 and 2. This is an important feature, since it prevents the rod when extended from turning in the tube.

Having thus described my invention, what I claim is—

1. A threading device comprising a tube, slotted at one extremity, a hooked rod located in said tube and having a portion bent out of line with the body of the rod and adapted to engage said slot, a plunger connected with the rod and adapted to enter the tube, and a spring located between the plunger and a shoulder formed on the tube.

2. A device comprising a tube slotted on opposite sides, at one extremity, a rod located in the tube and formed with a portion bent out of line with the body of the rod and adapted to enter one of the slots in the tube, a hook being formed on the rod and adapted to enter the other slot of the tube, and a spring-held plunger entering the opposite extremity of the tube and connected with the rod.

3. A device comprising a tube having a slot at one extremity, a hooked rod adapted to enter the tube, and having a portion bent out of line with the body of the rod to engage the slot in the tube and prevent the rod from turning therein, and a spring-held plunger connected with the rod and adapted to enter the tube, the said plunger being provided with a shoulder adapted to limit the movement of the rod.

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

GEORGE J. KINDEL.

Witnesses:

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