

No. 697,836.

Patented Apr. 15, 1902.

J. G. GORHAM.  
SCREW DRIVER.

(Application filed July 29, 1901.)

(No Model.)

Fig. 1

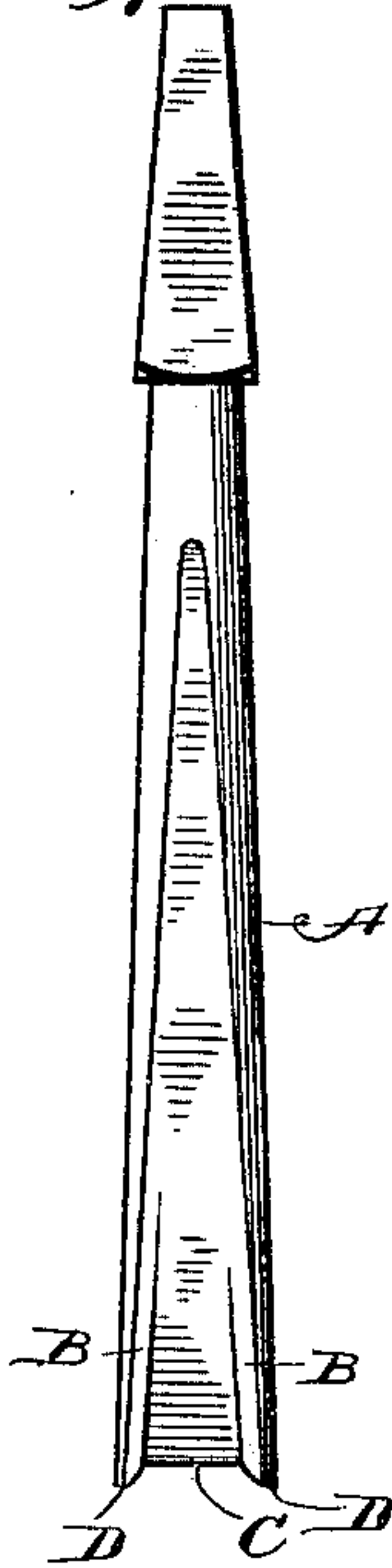


Fig. 2

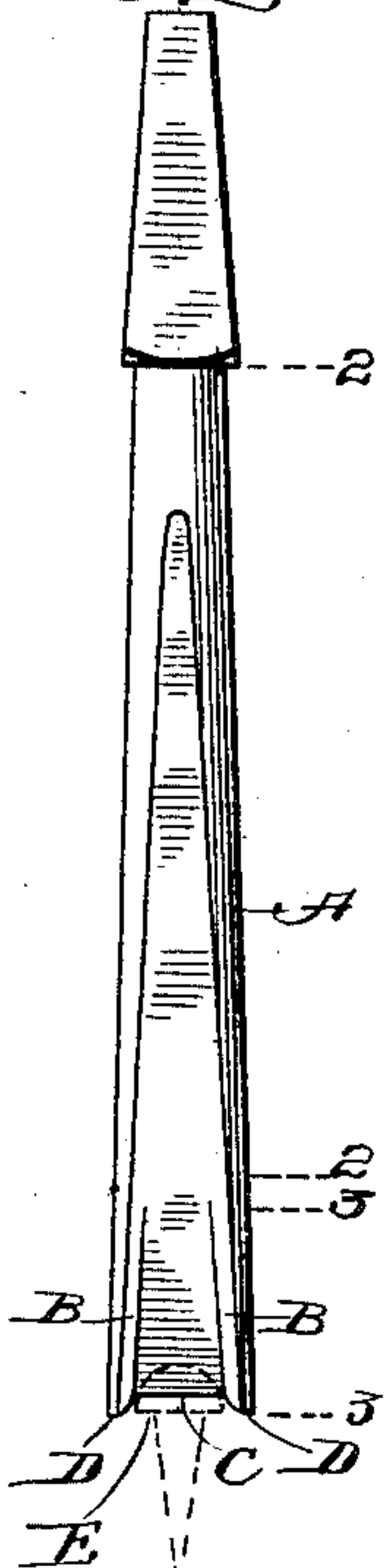


Fig. 3

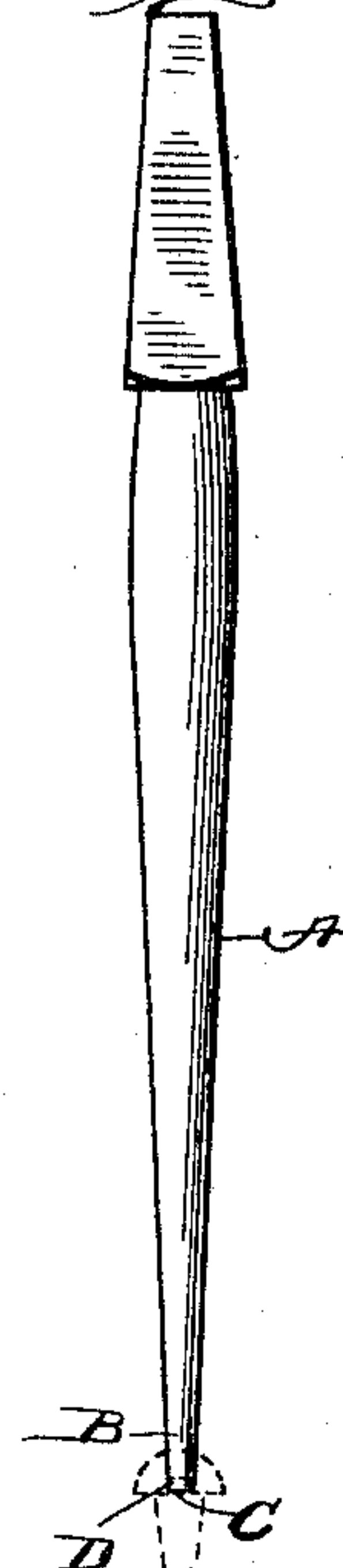


Fig. 4

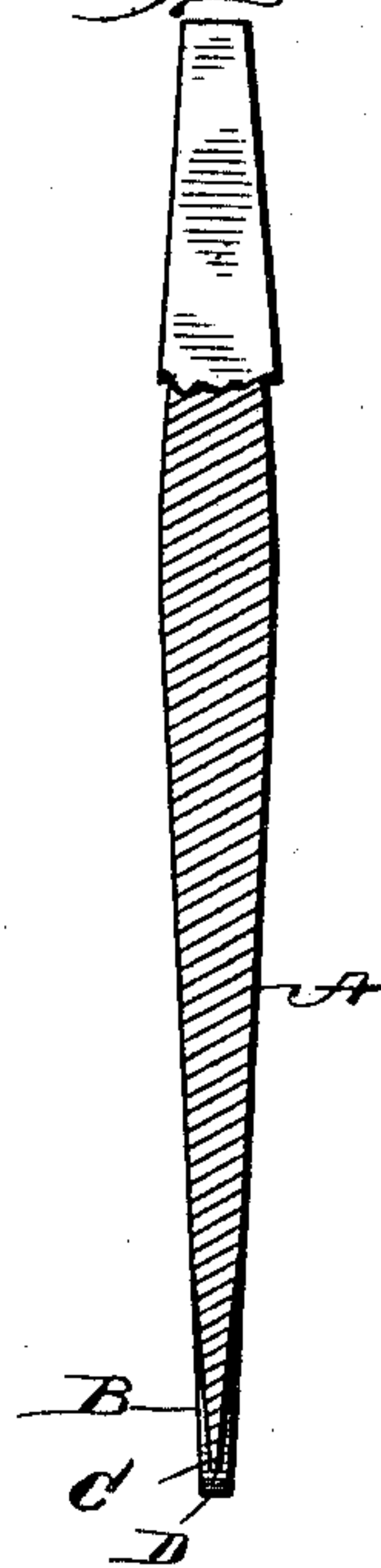


Fig. 5

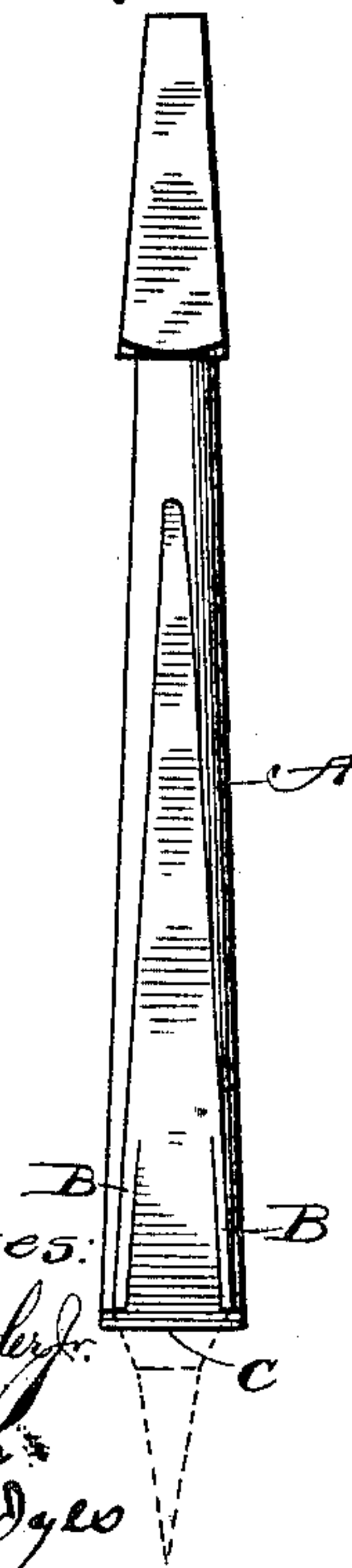


Fig. 6

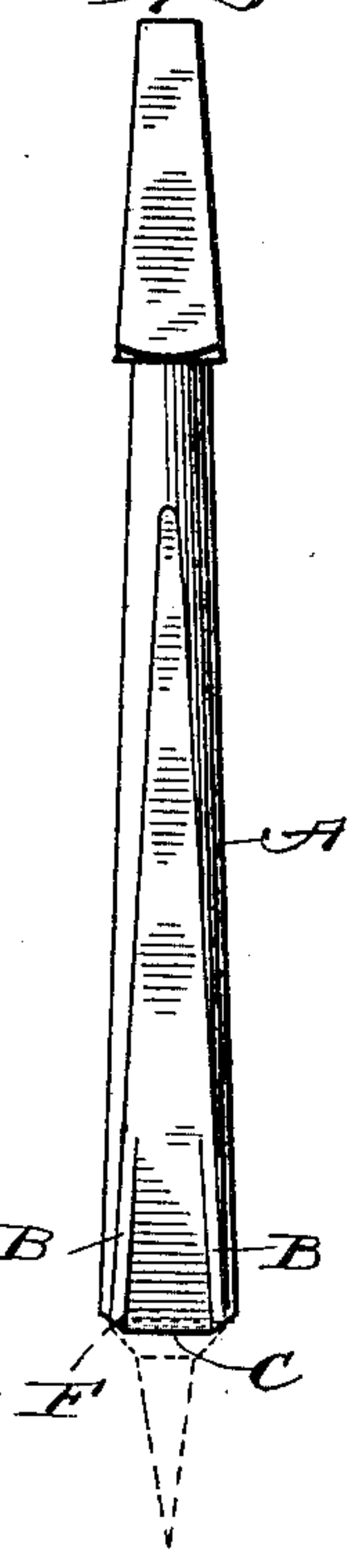


Fig. 7

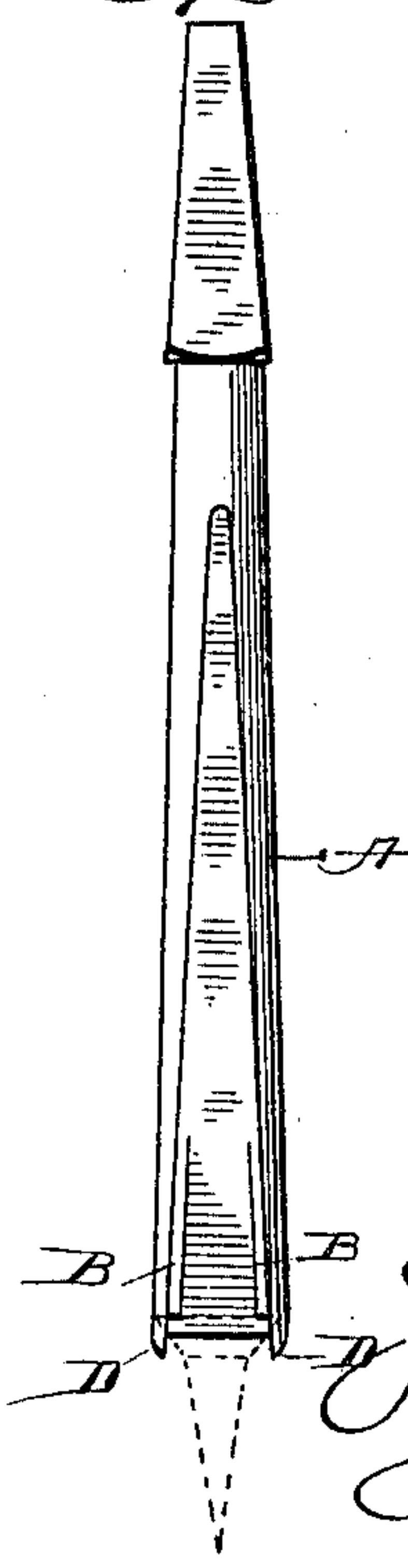
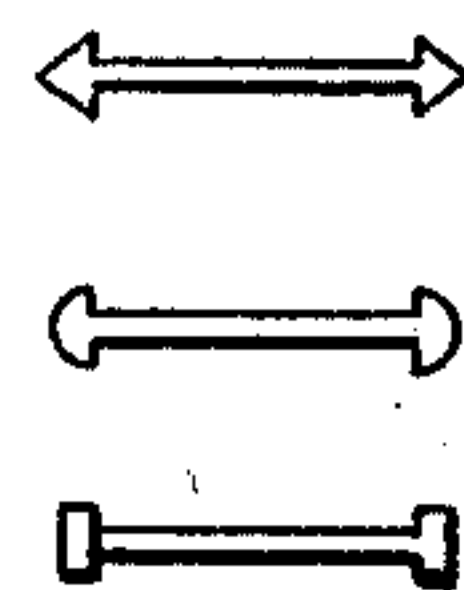


Fig. 8



Witnesses:

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# UNITED STATES PATENT OFFICE.

JOHN GILMAN GORHAM, OF MANSFIELD, OHIO.

## SCREW-DRIVER.

SPECIFICATION forming part of Letters Patent No. 697,836, dated April 15, 1902.

Application filed July 29, 1901. Serial No. 70,122. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN GILMAN GORHAM, a citizen of the United States of America, and a resident of Mansfield, in the county of Rich-  
land and State of Ohio, have invented certain new and useful Improvements in Screw-Drivers, of which the following is a specification.

The objects of my improvement are, first, to increase the strength and power of the blade; second, to construct a screw-driver with strengthening-ribs made integral and extending below the end of the blade and adapted to keep the blade in the center and in full contact with the slot in the head of the screw when in use; third, to construct a screw-driver that will drive round or bevel head screws with equal facility. I attain these objects by means of the screw-driver constructed as shown in the accompanying drawings, in which--

Figure 1 is a plan view of the screw-driver blade. Fig. 2 is the same as Fig. 1, showing the end of the blade inserted in the slot of a round-head screw. Fig. 3 is a side view showing the projecting ends of the ribs overlapping the head of a round-head screw. Fig. 4 is a sectional side or edge view taken on the line XX of Fig. 1. Figs. 5 and 6 are sectional end views showing the blade constructed in a modified form. Fig. 7 is a plan view of the end of the screw-driver, showing its application to a bevel-head screw. Fig. 8 is an end view of the blade, showing modified forms of the strengthening-ribs.

Similar letters of reference refer to similar parts throughout the several views.

The blade A of the screw-driver between the lines 2 2 is formed round, square, flat, or any other shape desired. The end of the screw-driver between the lines 3 3 has strengthening-ribs B B, made integral with the sides and extending below the end of the blade. The end C of the blade is made to fit the slot cut in the head of the screw it is desired to drive, and its length slightly exceeds the length of the slot cut in the head of the screw. This prevents the screw-head from coming in contact with the inner edges of the projecting ends D D of the ribs and causing the blade to leave the slot by reason of the friction between the projecting ends of the

ribs and the head of the screw. In constructing the blade to drive round-head screws the projecting ends D D overlap the largest diameter of the head and are made flush with the shoulder E of the screw. The construction of the blade is modified somewhat to adapt it to drive bevel-head screws. The extreme width of the blade, including the strengthening-ribs, corresponds with the largest diameter of the screw-head. A portion of the strengthening-ribs B B terminate at or adjacent to the face F of the screw. The remaining outer portion of the ribs, including the projections D D formed thereon, are made narrower to fit in the slot cut in the head of the screw, the outer edges of the projecting ends D D being made the same width as the largest diameter of the head of the screw and the inner edges of the projecting ends being made to correspond with the diameter of the head of the screw outlined by the depth of the slot. The margin between the largest diameter of the head of the screw and that outlined by the depth of the slot regulates the width of the projecting ends which guide and retain the blade in contact with the slot in the head of the screw when in use. By means of the strengthening-ribs the tendency of the corners of the end of the blade to break when subjected to an unusual strain is reduced to a minimum and the utility of the screw-driver is increased. The projecting ends serve to keep the ends of the screw-driver blade in contact with the slot and prevent it from slipping. The shape of the ribs can be varied, as shown in Fig. 8.

A modification of the construction of my screw-driver is shown in Figs. 5 and 6.

The end of the blade C can be made straight, as shown in Fig. 4, or it can be made tapered, the same as the ordinary screw-driver.

It will be observed that the construction described above affords a means of driving screws with greater rapidity and facility than is possible with the use of the ordinary screw-driver, as it can be subjected to more strain than the ordinary screw-driver and practically obviates the danger of marring or injuring the work by slipping out of contact with the slot in the screw when in use, the projecting ends keeping the blade in full and constant contact with the slot.



What I claim as my invention, and desire to secure by Letters Patent, is—

1. As an article of manufacture, a screw-driver provided with a tapering blade, strengthening-ribs extending longitudinally along the edges of the blade, the blade being of greater thickness at its edges than intermediate thereof on account of the presence of the ribs.
2. As an article of manufacture, a screw-driver provided with a tapering blade, strengthening-ribs extending longitudinally along the edges of the blade, the ribs diverging from one another as they approach the point of the blade of the screw-driver, the blade being of greater thickness at its edges than intermediate thereof on account of the presence of the ribs.
3. A screw-driver consisting of a shank, the lower portion of the shank formed into a blade, strengthening-ribs extending longitudinally along the edges of the blade, the ends of the ribs extending below the point of the screw-driver, the point of the screw-driver being narrower than the breadth of the ribs.

4. A screw-driver consisting of a blade, longitudinal strengthening-ribs formed on the edges of the blade, the ribs diverging from each other as they approach the point of the screw-driver, the ends of the ribs extending below the point of the screw-driver and being oppositely beveled at their extreme ends.

5. A screw-driver consisting of a blade, the diameter of which gradually increases as it approaches the point, ribs formed on the gradually-diverging edges of the blade, the ribs provided with ends projecting beyond the point of the blade, the ends of the ribs adapted to embrace the sides of the screw-head and prevent the point of the screw-driver from slipping endwise in the slot in the screw-head.

Signed by me, at Mansfield, county of Richland, and State of Ohio, this 17th day of July, 1901.

JOHN GILMAN GORHAM.

Witnesses:

ED STOTER,

JOHN H. COSS.