

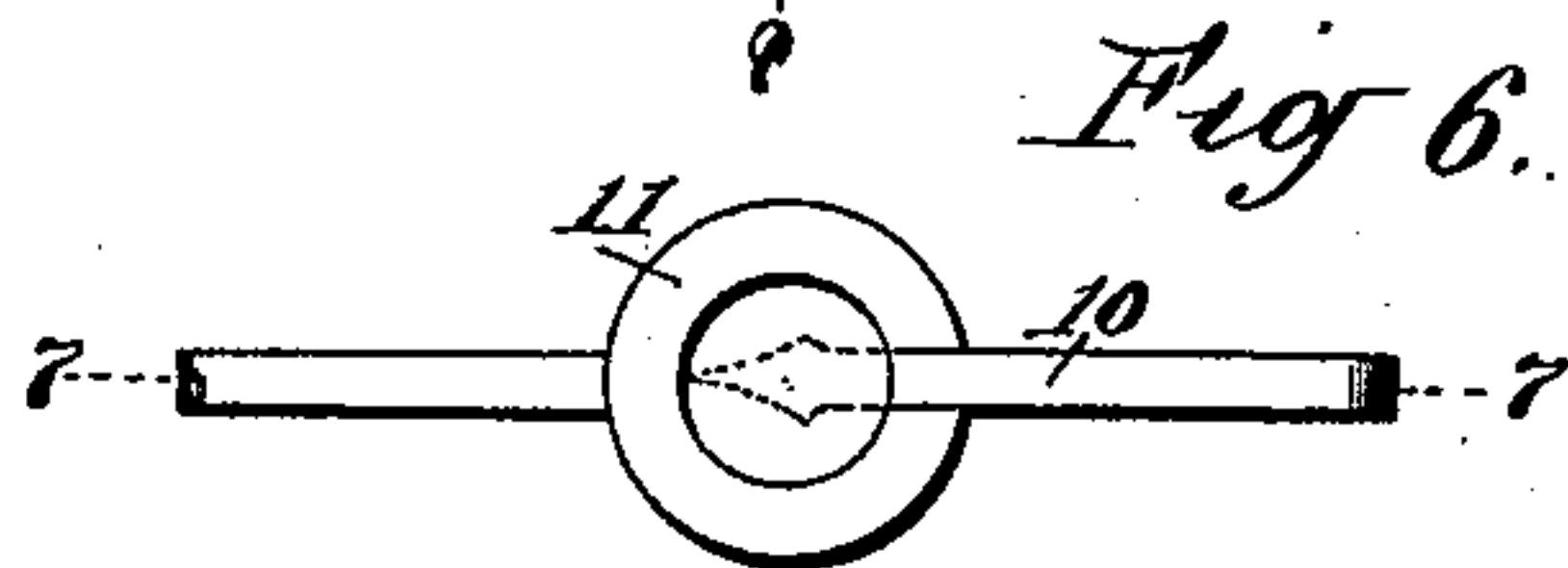
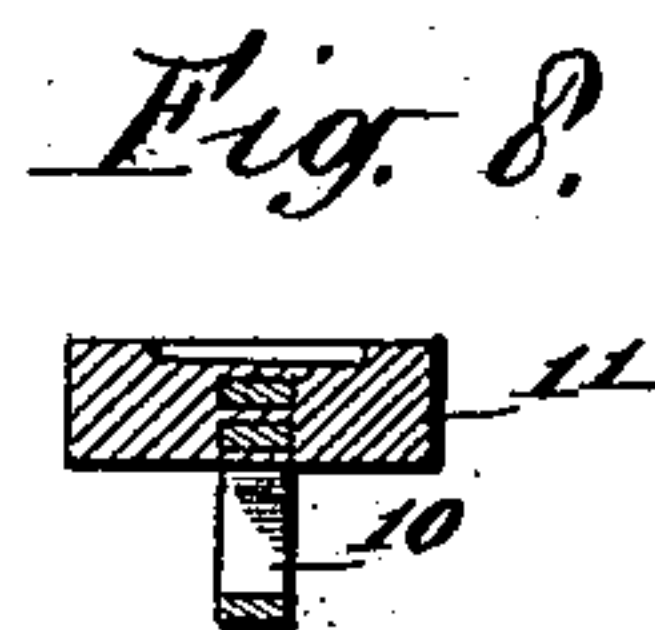
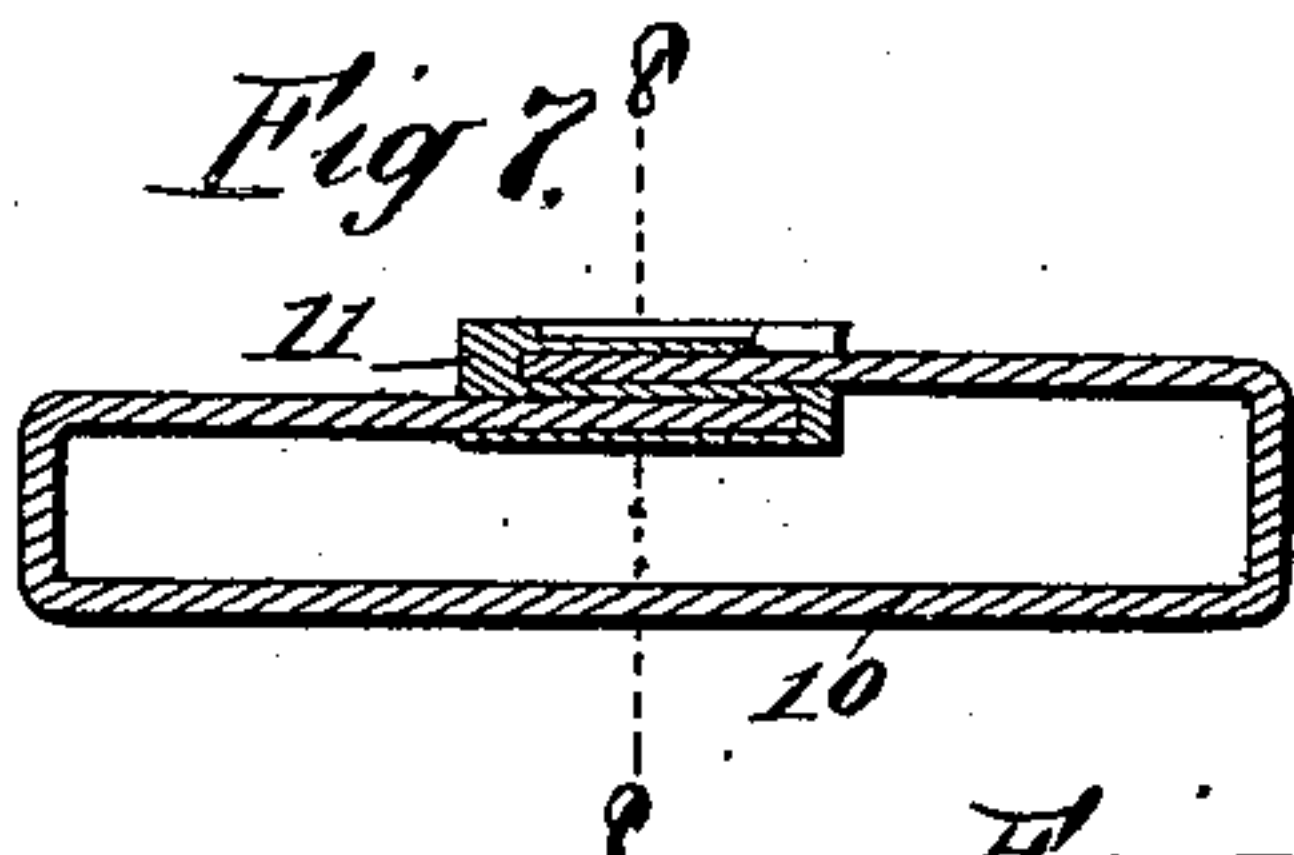
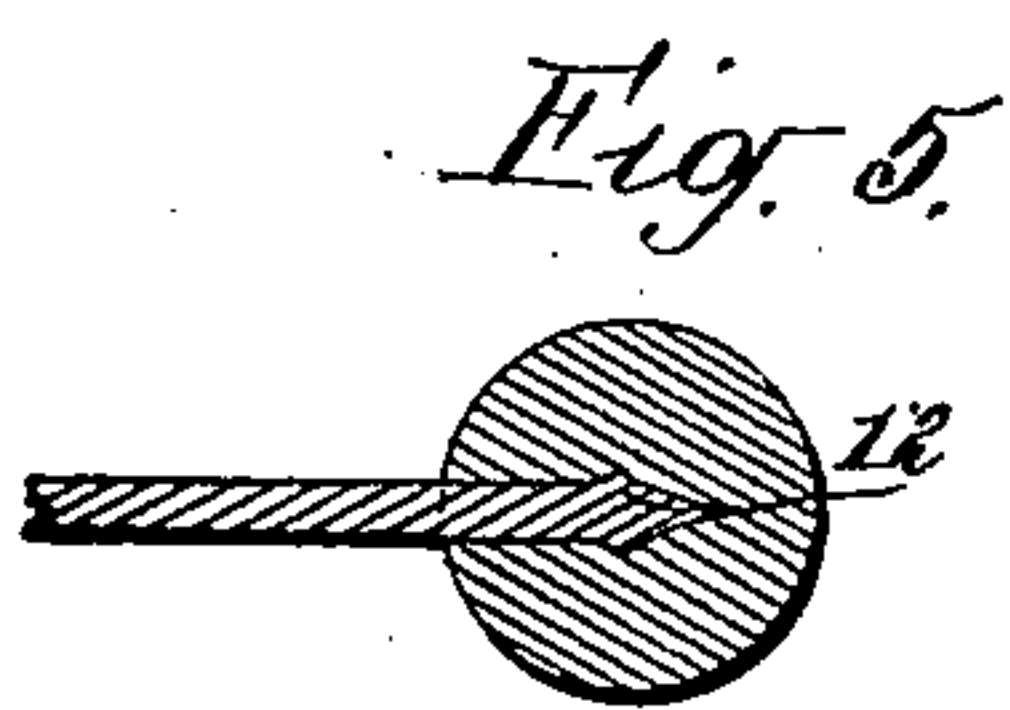
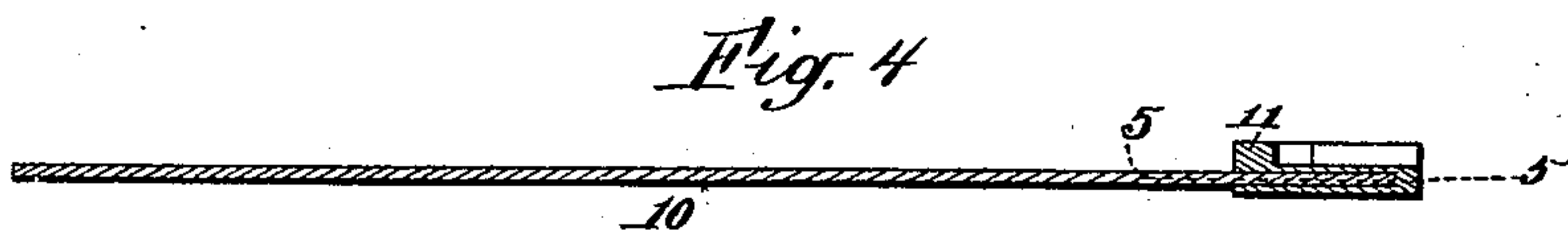
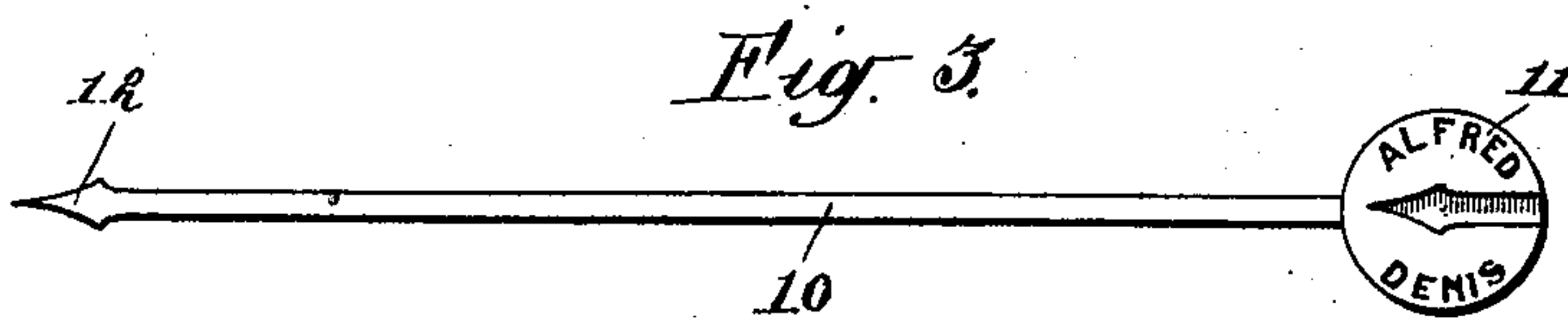
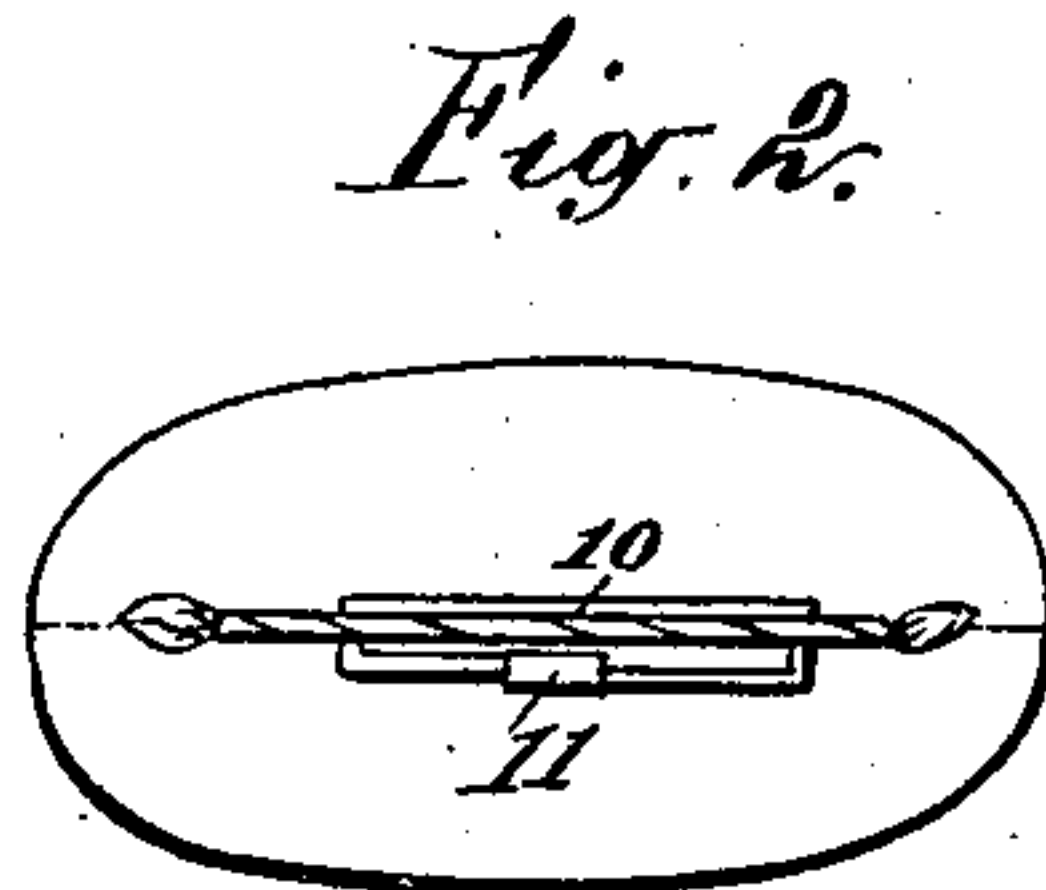
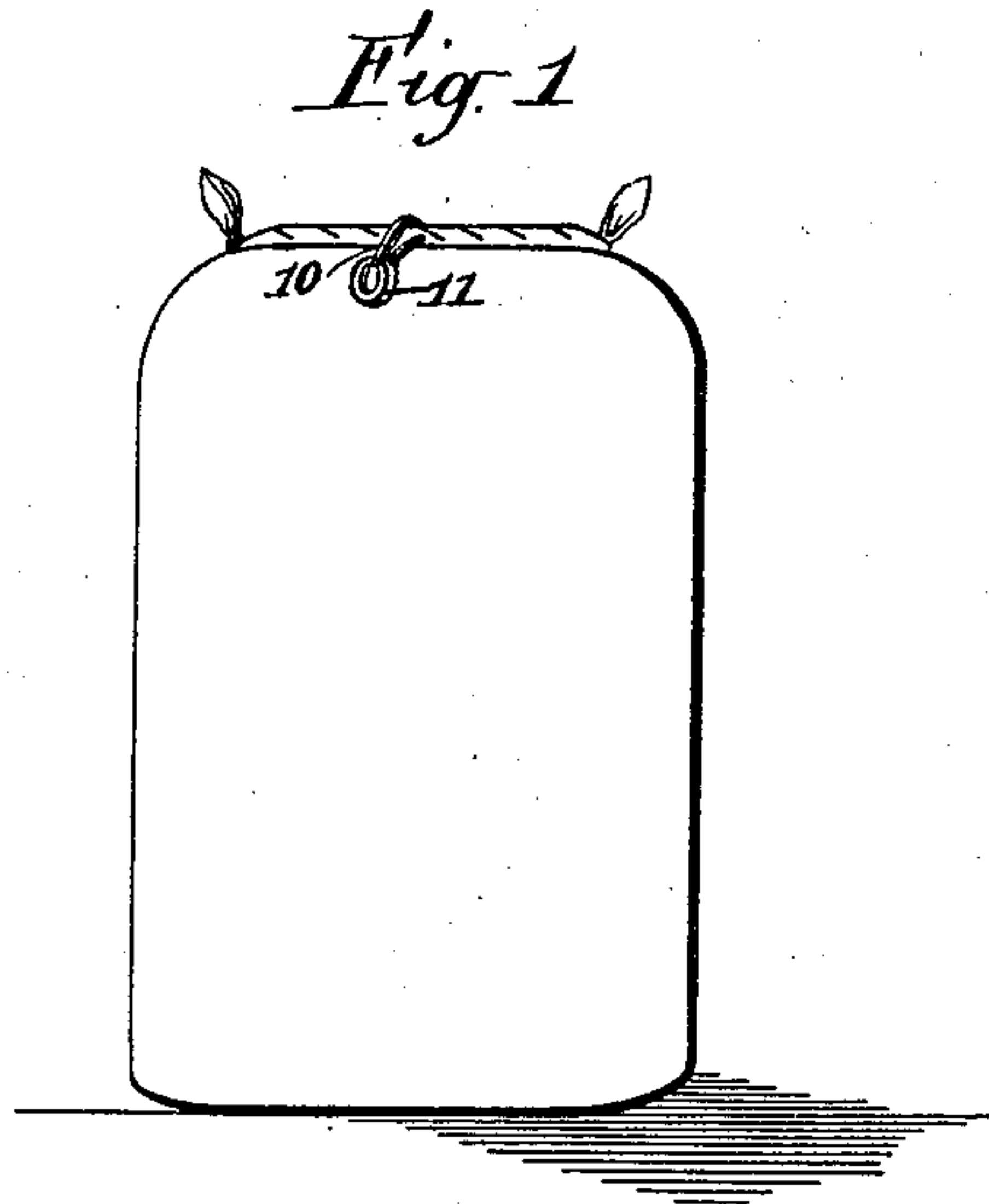
No. 689,542.

Patented Dec. 24, 1901.

A. DENIS.
BAG SEAL.

(Application filed Oct. 27, 1900.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

ALFRED DENIS, OF ST. HYACINTHE, CANADA.

BAG-SEAL.

SPECIFICATION forming part of Letters Patent No. 689,542, dated December 24, 1901.

Application filed October 27, 1900. Serial No. 34,640. (No model.)

To all whom it may concern:

Be it known that I, ALFRED DENIS, a subject of Her Majesty the Queen of Great Britain, residing at St. Hyacinthe, in the county of St. Hyacinthe, Province of Quebec, Canada, have invented certain new and useful Improvements in Bag-Seals; and I do hereby declare that the following is 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.

My invention relates to improvements in bag-seals, and has for its object the provision of a seal which is especially applicable to the sealing of bags and the like by the threading of a metallic bendable strip having its ends adapted to be interlocked within the seal-body.

By the construction hereinafter described the sealing of flour-bags and the like against surreptitious opening is prevented, the threaded metallic strip forming a supplementary means which tends to prevent the destroying and substitution of the usual thread closure. In this manner tampering with the contents of the bag is discouraged, inasmuch as the sealed connection cannot be broken without leaving tangible evidence of such tampering.

Further objects and advantages of the invention will appear in the course of the subjoined description and the novelty, construction, arrangement, and adaptation of the parts will be defined by the claims.

In the drawings hereto annexed, forming a part of this specification, Figure 1 is a view of a flour-bag with my seal applied thereto according to one embodiment of the invention. Fig. 2 is a plan view of the sack, illustrating another method of applying the seal thereto. Fig. 3 is a plan view of the seal detached and on an enlarged scale. Fig. 4 is a longitudinal section through the seal. Fig. 5 is a horizontal section in the plane of the dotted line 5 5 on Fig. 4, showing the permanent key connection, one end of the bendable strip, and the soft-metal disk. Fig. 6 is a plan view showing the two ends of the bendable strip united by the soft-metal disk. Fig. 7 is a longitudinal section in the plane of the dotted line 7 7 on Fig. 6. Fig. 8 is a transverse section in the plane of the dotted line 8 8 on Fig. 7.

My improved seal consists of a bendable strip 10 and a soft-metal disk 11. This bendable strip may be made of any suitable ductile metal, of rectangular form in cross-section, and of a proper length for application to the folded mouth of a bag or sack.

An important feature of my invention consists in making each end of the bendable metal strip with a spear-shaped head 12, as clearly shown by Figs. 3 and 5—that is to say, each end of the strip is provided with lateral ears and with a pointed extremity. This construction of the strip is advantageous for two reasons—first, the spear-shaped head has its barbs embedded in the body or disk, so as to form an interlocking key connection with the soft-metal disk, as shown by Fig. 5, which effectually prevents the strip from pulling out of the disk in which it is embedded, and, secondly, said spear-shaped strip may easily be thrust or forced through the folded mouth by reason of the pointed extremity of the strip, the laterally-extending ears of the spear-shaped head providing clearance in the bag fabric for the passage of the rectangular portion of the strip.

The soft-metal disk 11 may be of any suitable size and material. In fact, this soft metal is not necessarily in the form of a disk, because it may be made square or any other suitable shape. As shown by Fig. 4, the spear-shaped extremity at one end of the bendable strip 10 is embedded in this soft-metal disk, which is preferably made of soft lead; but the key connection between the disk and the strip prevents any accidental disconnection of these elements.

The seal of my invention may be connected to a bag or sack in either of two ways, one of which is shown by Fig. 1 and the other is represented by Figs. 2, 6, 7, and 8.

It is well known to those skilled in the art that the modern practice of packing flour in bags for household consumption contemplates the use of fabric sacks the mouth portion of which is rolled or folded upon itself, after which the ends or corners of the sack are twisted together, so as to form outstanding ears, and, finally, this twisted and rolled closure of the bag is sewed together for securing a close joint and preventing leakage of the flour as well as surreptitious opening of the

bag by unscrupulous dealers. In fact, many flour-packers have resorted to the use of an extra good quality of twine for sewing up the mouth of the bag, and in one instance that I am aware of a flour-packer has gone so far as to employ a twine consisting of variously-colored threads in order to give a distinctive mark or appearance to the products of his mill or factory and to insure to his customers the delivery of a high grade of flour. These efforts have not been successful in wholly preventing other dealers from tampering with the merchandise of honest dealers, because the twine has been carefully withdrawn from the sack in order to open the same, the high grade of flour has been emptied from the sack, an inferior grade of flour replaced therein, and the same twine has been used to close up the sack. My invention contemplates the attachment of the seal (shown by Figs. 3, 4, and 5) to the mouth portion of the bag after the same shall have been closed and sewed. The pointed or spear-shaped end is thrust through the bag-mouth, and the strip is brought around so as to make this spear-shaped end overlap the soft-metal disk. This disk is now compressed in a suitable instrument known as a "seal-press," so as to force the soft-metal disk around the spear-shaped free end of the strip, whereby the seal is attached to the bag in such a way that the bag-mouth cannot be opened without first breaking the seal.

The preferred way of attaching the seal to the sewed mouth of the flour-bag is shown by Figs. 2 and 6 to 8, inclusive. The spear-shaped head of the bendable strip is first thrust through the folded bag-mouth at a point near one ear thereof and so as to have the seal at one side of the mouth. Then the strip is bent to extend in a direction parallel to the mouth for a suitable distance. The spear-shaped end is again passed through the bag-mouth, but in a reverse direction, so as to bring the pointed end on the same side as the soft-metal disk, and finally the free end of the strip is united to the disk by compressing the metal thereof around the spear-shaped head. This arrangement of the bendable strip makes the seal take in or embrace a considerable portion of the bag-mouth, and thereby reduces the area of the opening, which may be formed by partially ripping open the sewed mouth of the bag, thus making it more difficult and tedious for a dealer to empty and refill a bag equipped with a seal of my invention.

If desired, the soft-metal disk may be impressed with the name of the manufacturer when it is compressed around the free end of the bendable strip, as represented by Fig. 3.

Changes within the scope of the appended claims may be made in the form and proportion of some of the parts while their essential features are retained and the spirit of the in-

vention is embodied. Hence I do not desire to be limited to the precise form of all the parts as shown, reserving the right to vary therefrom.

Having thus described my invention, what I claim as new is—

1. A bag-seal comprising a flat bendable metallic strip of equal thickness from end to end and having at each end a pointed and expanded head portion; and a soft-metal body of disk shape, said body having one of the headed ends embedded therein, the strip leading from the periphery of the body portion, said body portion having a recess corresponding in shape to that of the opposite end of said strip, said recess extending inwardly from a point on the periphery opposite that from which said strip leads, said recess being located above the plane of the embedded head portion of the strip, an intermediate integral metallic portion being provided therebetween, said recess, prior to the securing the free end of the strip in position being open to the top surface of the body, whereby said body portion will receive the ends of the bendable strip and under pressure cause said ends to be incorporated and interlocked therewith in such manner that the strain exerted to separate the strip and body will be in opposite directions with no tendency to destroy the intermediate metallic portion.

2. A bag-seal comprising a flat substantially thin bendable metallic strip of equal thickness from end to end and having at each end a pointed and expanded head portion of a shape corresponding with that of a barbed arrow-head, the barbs extending laterally of the strip on opposite sides thereof; and a soft-metal body portion of disk shape, said portion having one of the headed ends of the strip embedded therein, said headed end extending into and partially across the body portion in a horizontal direction, said body portion having also a recess leading from the periphery of the body portion and extending partially across the body portion in a plane parallel with the embedded end said latter plane being above that of the plane of the embedded end an intermediate integral metallic portion being provided therebetween, said recess being of a shape corresponding with and of a size to receive the free headed end of the strip, said recess, prior to the upsetting of the metal to lock the headed end therein, being open to the top surface of the body portion, the upsetting of the body portion serving to lock the end of the strip within the body portion.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

ALFRED DENIS.

Witnesses:

F. BORDUAS,

L. A. BRUNELLE.