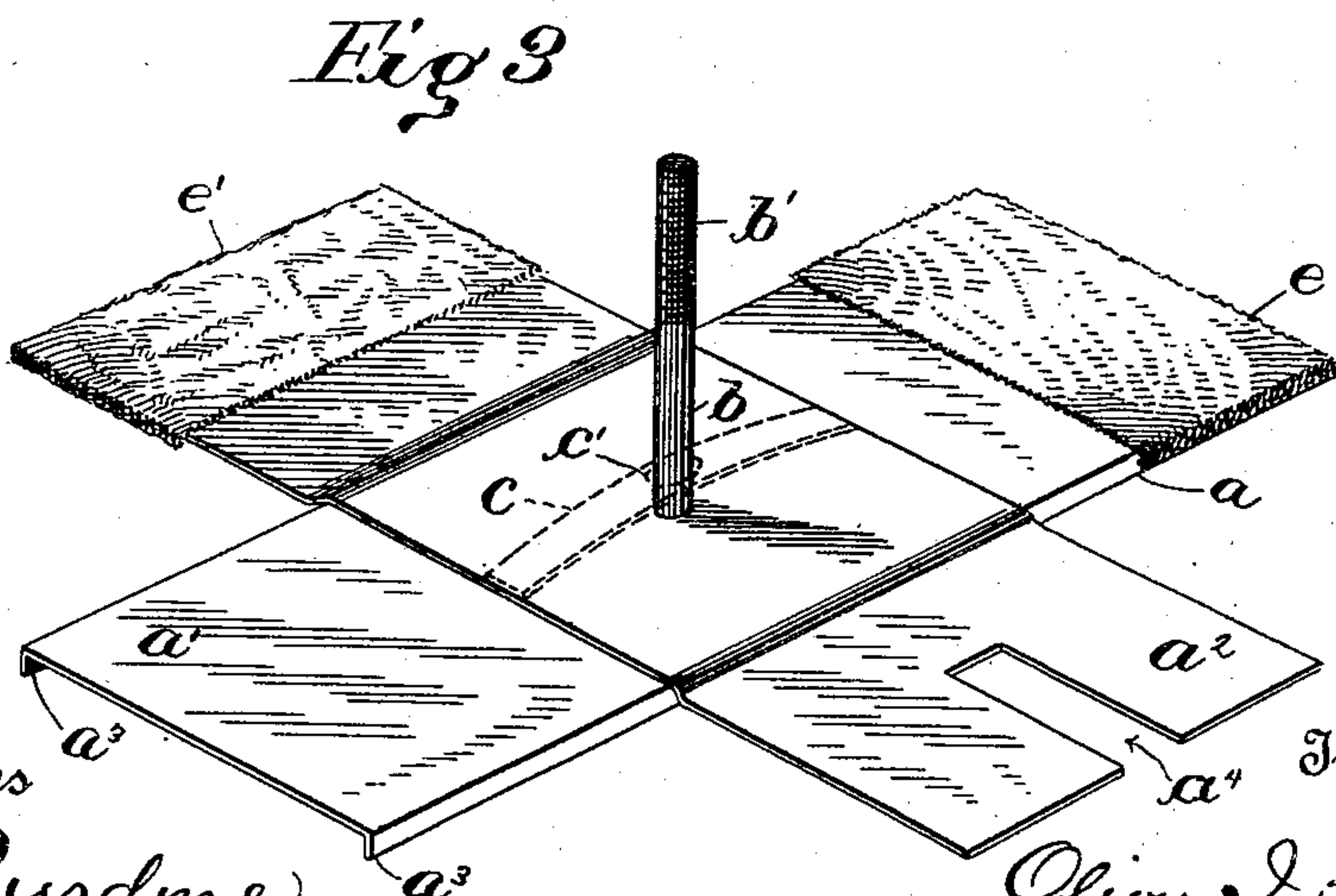
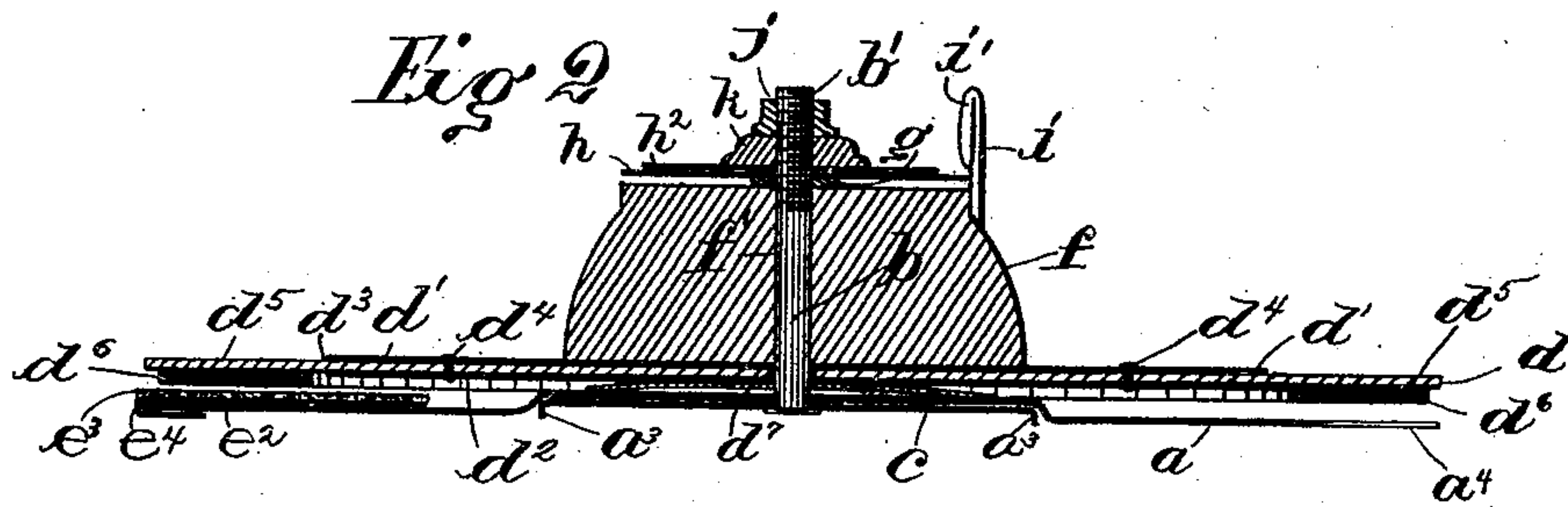
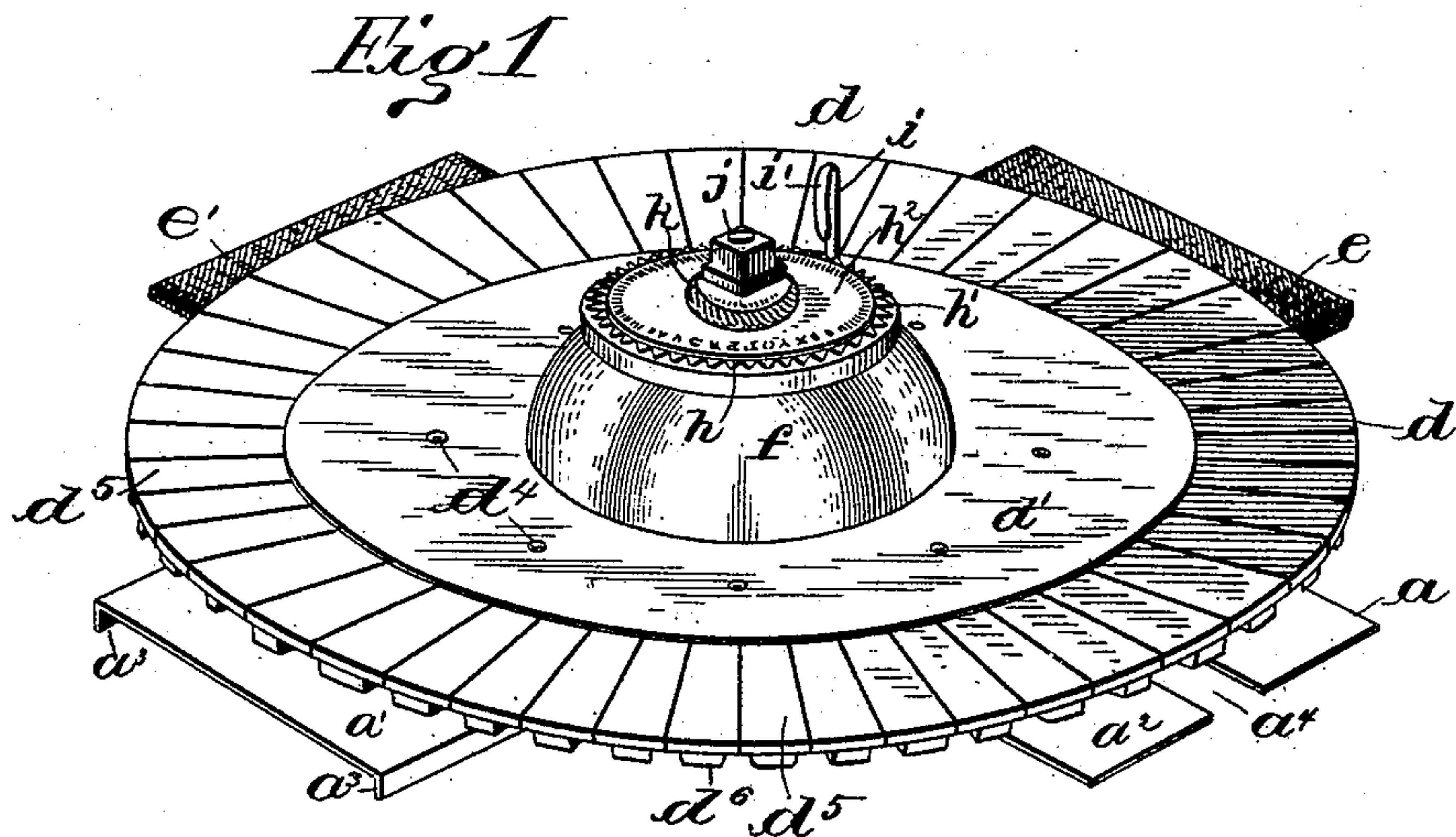


(No Model.)

O. I. HESS.
TYPE WRITING MACHINE.

No. 495,135.

Patented Apr. 11, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

OLIVER I. HESS, OF MOUNT PLEASANT, PENNSYLVANIA.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 495,135, dated April 11, 1893.

Application filed June 11, 1892. Serial No. 436,328. (No model.)

To all whom it may concern:

Be it known that I, OLIVER I. HESS, a citizen of the United States, residing at Mount Pleasant, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Type-Writing Machines; 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 letters of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in that class of typewriters used for marking boxes and packages to be shipped or for printing store signs, &c.

My object is to produce a more simple and inexpensive arrangement than has heretofore been known and also to provide a device which will be durable and easily and quickly operated.

To this end my invention consists of certain novel features and combinations of parts more fully described hereinafter and pointed out in the claims.

Referring to the accompanying drawings which illustrate my improvements: Figure 1 represents a perspective view thereof; Fig. 2 a longitudinal section; Fig. 3 a view in perspective showing the type form and its attachments removed.

The reference letter *a* represents the base of my improved machine which is constructed of two rectangular sheet metal plates *a'* and *a''* securely fastened to each other at right angles so as to form substantially a Roman cross. The edges of the section *a'* are turned down to form sharp flanges *a'''* which are adapted to engage the writing surface, enabling the machine to be moved forward easily and smoothly in a straight line and holding it secure when in use. Projecting upwardly from the center of the base *a* and rigidly secured thereto is a vertical spindle *b*. This spindle has formed on its upper and free end screw threads *b'* to receive a nut by which the type form is held in place, as will be more fully described hereinafter. A flat spring *c*, is located on the upper side of the

base and held in adjustment by means of a central hole *c'* which is adapted to receive the spindle *b*.

The type form *d* is constructed of a pair of circular metallic plates *d'* and *d''* located one on either side of the flexible canvas disk or plate *d'''* which is also circular in shape and somewhat larger than the two plates *d'* and *d''*. This disk *d'''* is securely fastened between the plates *d'* and *d''* by means of a number of rivets *d''''* and has its periphery cut radially to form the lips or tongues *d'''''*. To the under side of these tongues are secured the type *d''''''*. These type extend the entire length of the tongues *d'''''* and are adapted to engage when depressed the inking pads *e* and *e'* secured to the base *a*, the spring *c* serving to hold them normally out of engagement with the same. The disk or plate *d'''* is preferably made of rubber with the type formed integral therewith on its under side, and when so made the periphery need not be cut radially.

Formed in the center of the above described type form is a central hole *d''''* which receives the spindle *b*. By this means the type form is revolvably mounted in place, it being kept normally above the base plate *a*, by means of the beforementioned spring *c*.

Rigidly secured to the top of the type form *d*, and forming a part thereof is a frusto-conical block *f*, formed preferably of wood although it may be constructed of metal if desired. This block has formed in it a central hole *f'* registering with that in the type form *d* and spring *c* through which the spindle *b* also passes.

Located on the spindle *b* a short distance above the block *f* is a nut *g*, which is preferably formed of sheet copper or other thin metal. This construction is deemed preferable as it is desirous to have the letter scale *h''* as near to the plain surface of the block *f* as possible, this may be easier done by making the nut *g* excessively thin.

Mounted on the spindle *b*, and of a size to correspond to that of the plain surface of block *f* is a metallic disk *h*, having formed on its periphery a series of notches *h'* corresponding in number to the number of type on the form *d*. Located directly above the disk and lying flush therewith is a circular

letter scale h^2 having marked on it the letters and figures comprised in the set of type. These letters are located directly opposite the notches h' of the disk h , and comprise the letter scale before mentioned.

Secured to the block f near its top is a pin or stud i . This pin has formed on its upper end the enlarged portion i' which is adapted to engage or disengage the notches h' in the disk h .

By rotating the type form the type having an impression of the letter which it is desired to print or stamp is brought over the opening a^4 in the base plate a , preparatory to making the impression.

The plates or disks h and h^2 are held securely and rigidly on the spindle b by means of the nut j working on the said spindle. An ornamented washer k may be interposed between the nut j and the letter scale if desired, this however is not essential.

The inking pads e and e' which are secured to one end of each of the sections or plates a' and a^2 are of a peculiar construction and shown in detail by Fig. 3.

e^2 represents a small sheet metal plate to which the pad e^3 is securely fastened. This plate has its end e^4 slightly reduced in width and turned under to embrace the end of the plate a' or a^2 as the case may be. By constructing the ink pads in this manner they may be easily removed for re-inking, which could not be done without taking the machine to pieces, if they were not so constructed.

The preferred construction of my device having now been set forth I will proceed to describe its use and mode of operation. To use my improvement the machine is placed on the surface upon which it is desired to write and the notch or opening a^4 in the base adjusted to the head of the line. The type form is then rotated by means of the block f until the pin i is directly opposite the letter desired to be printed, which letter is written on the letter scale h , the machine being adjusted so that these letters and those impressed on the type will register with each other. All that is necessary for the operator to do is to depress the block f which brings a number of the type in contact with the inking pads, and at the same time depress the tongue of the type form d which occurs over the opening a^4 whereupon the desired letter is printed. The letter spacing is effected by simply moving the whole machine one space to the right, or left, as the case may be, care being taken to retain the proper alignment, which may be easily done aided by the sharp edges a^3 , a^3 . This operation is continued until the desired printing is accomplished. In some cases it may be desirable to print in curved lines or in an arc; to effect this the spindle b may be extended below the base a such a distance that it will not engage the writing surface and by providing a spring similar to the spring c to hold the machine

above the said surface. By this means the entire machine may be rotated on this spring, the spindle thus extended forming a pivot therefor. It follows that by rotating the machine instead of moving it in a straight line the course of the writing will be circular.

In the following claims wherever the term "stationary base" is used I desire it understood that a base stationary in relation to the type form only is meant; but removable in relation to the writing surface.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with the base of a typewriter adapted to be moved laterally along the writing surface, of one or more flanges formed on the under side of the base and laterally extending in a direction similar to the movements of the said base, substantially as described.

2. In a typewriting machine, the combination of a base adapted to be moved along the writing surface for spacing purposes, a vertically extending spindle rigidly secured to the same, a type form mounted on the spindle and capable of revolving freely thereon, and a letter-scale rigidly secured to the spindle substantially as and for the purpose specified.

3. In a typewriting machine, the combination of a base adapted to be moved along the writing surface for spacing purposes, a vertically extending spindle rigidly secured thereto, a type form mounted on the spindle and capable of revolving freely thereon, an opening in the base through which the type of the type form pass to make an impression, and a letter scale fixed to move with the base only, substantially as described.

4. In a typewriting machine, the combination of a base adapted to be moved along the writing surface for spacing purposes, a vertically extending spindle rigidly secured to the base, a type form mounted thereon and capable of revolving freely thereon, a spring interposed between the type form and the base by which the said type form and base are kept normally out of engagement with each other, and a letter scale rigidly secured to the spindle, substantially as described.

5. In a typewriting machine, the combination of a base adapted to be moved along the writing surface for spacing purposes a vertically extending spindle rigidly secured to the base, a type form mounted thereon and capable of revolving freely thereon a pin or stud secured to the type form, a letter scale rigidly fixed to the spindle and having formed in its periphery a series of notches in conjunction with which the pin on the type form is adapted to operate, in the manner and for the purpose set forth.

6. In a typewriting machine, the combination of a base, a spindle rising vertically therefrom and rigidly secured thereto, a type form revolubly mounted on the spindle, a

spring interposed between the base and type
form, an opening in the base through which
the type from the form passes to make an im-
pression, a letter scale fixed to the free end
5 of the spindle and having notches formed in
its periphery, and a pin or stud secured to
the type form, all substantially as described.

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

OLIVER I. HESS.

Witnesses:

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J. B. COX.