

No. 697,214.

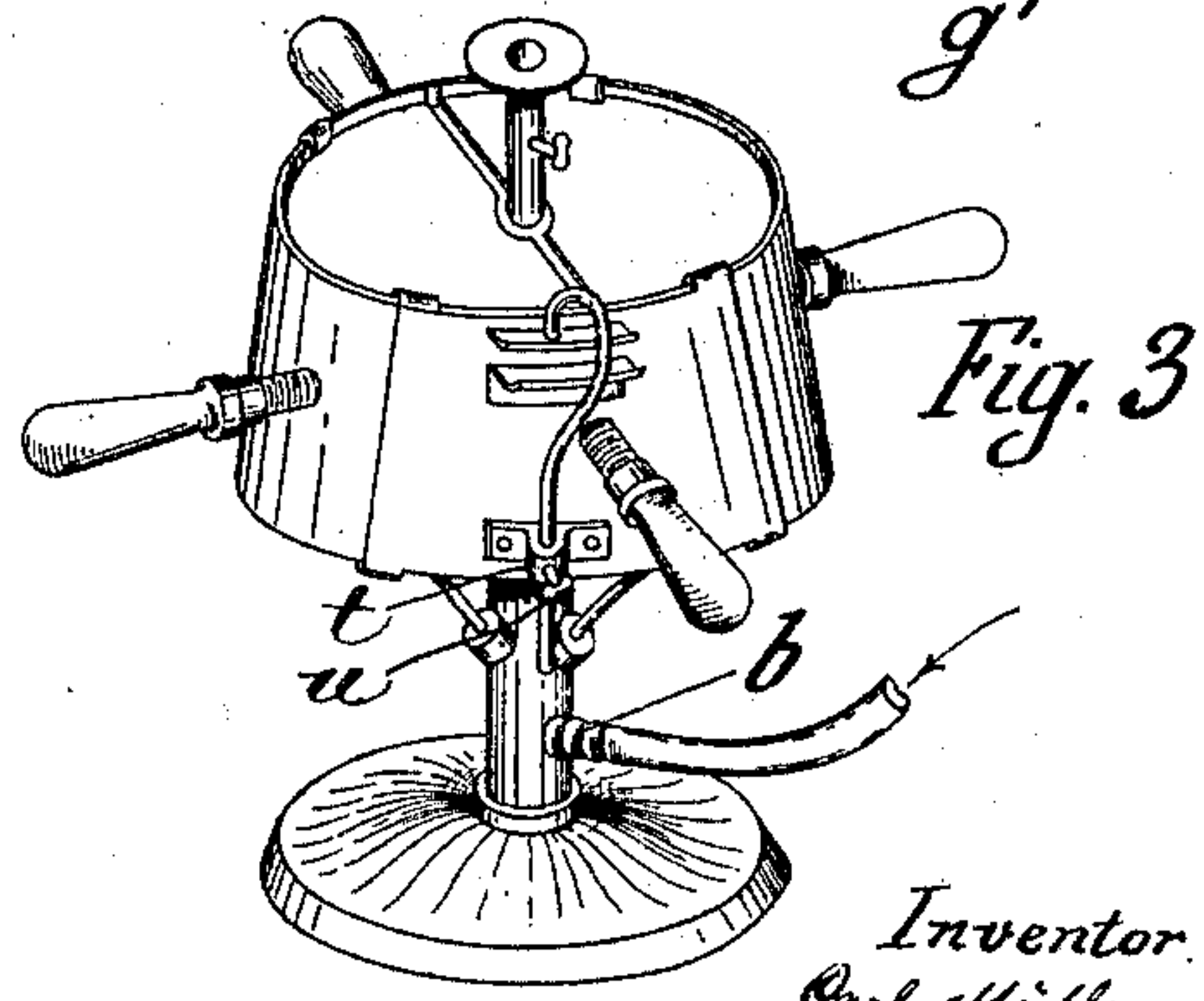
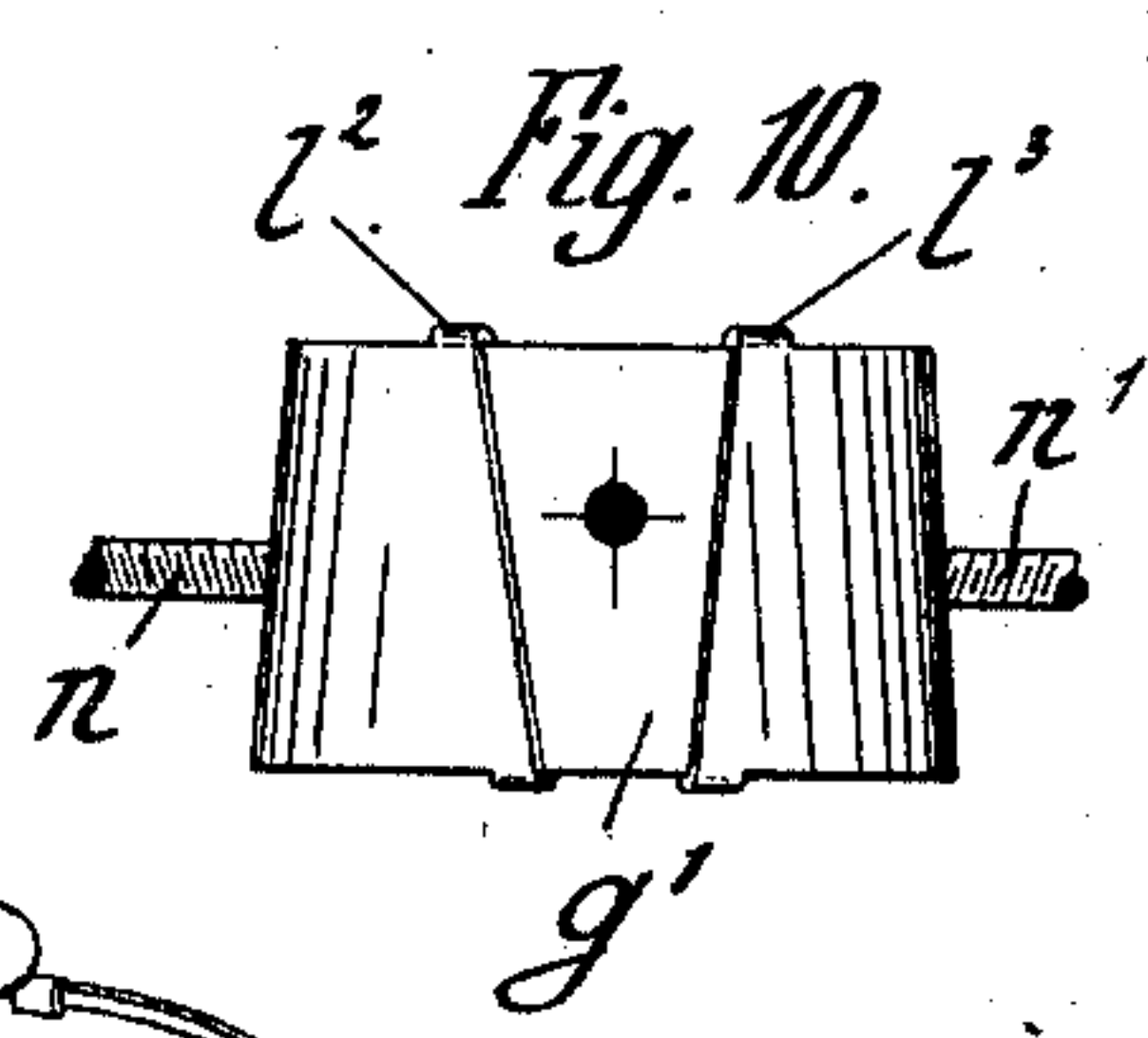
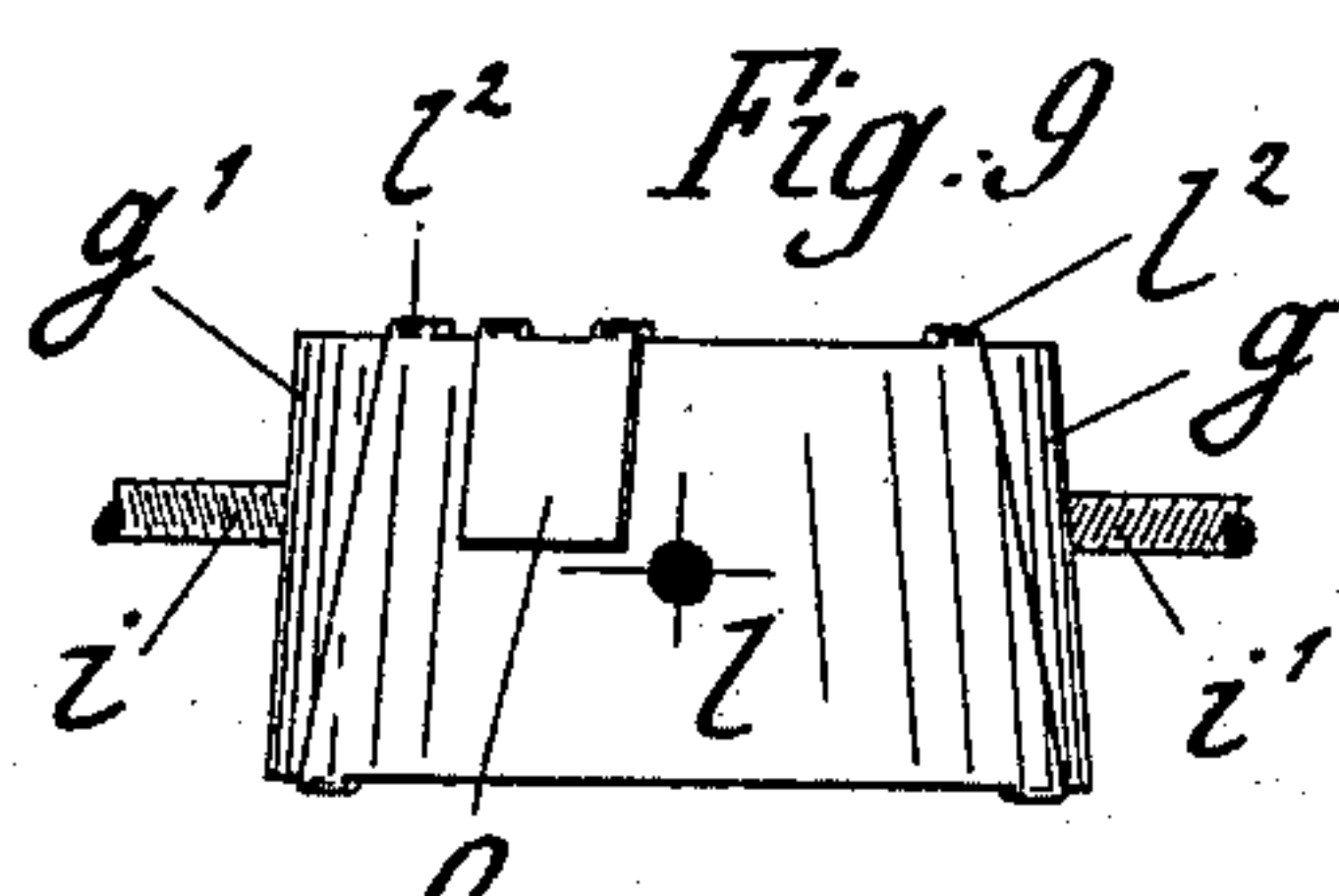
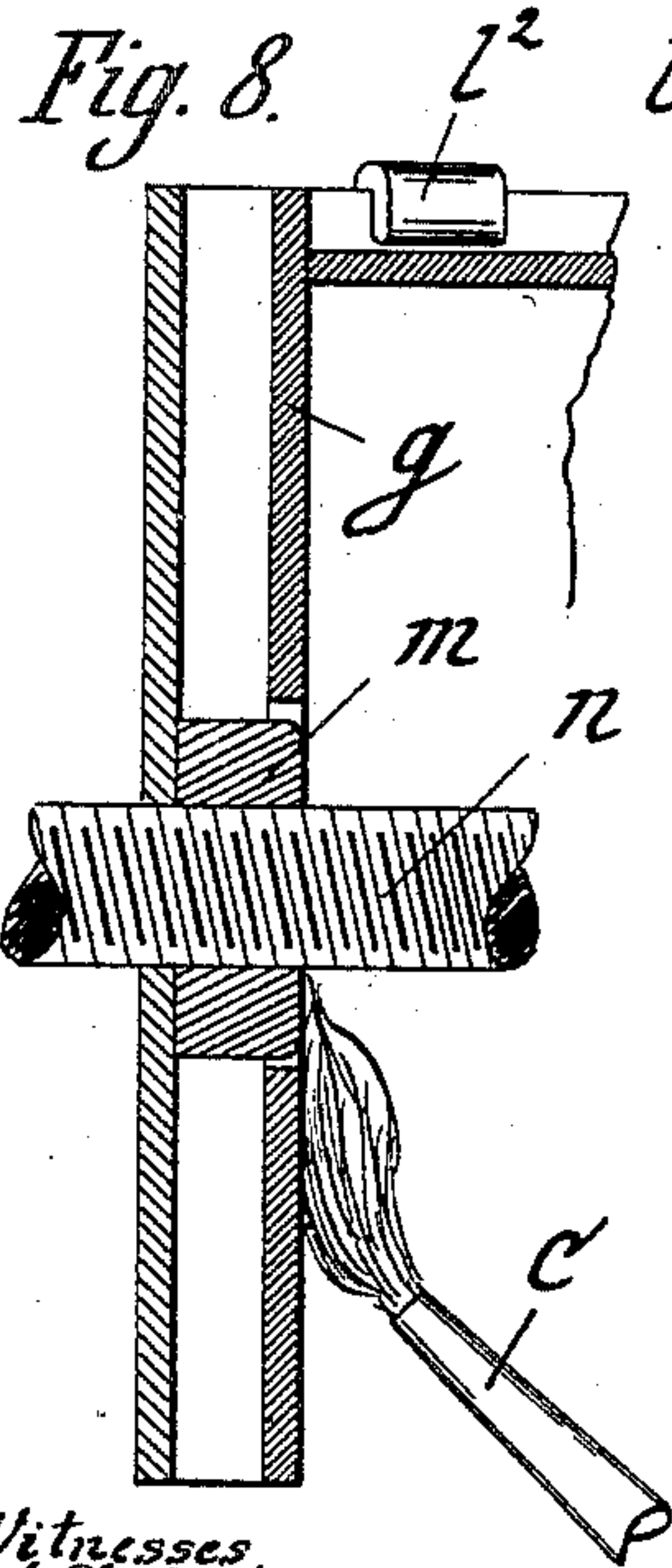
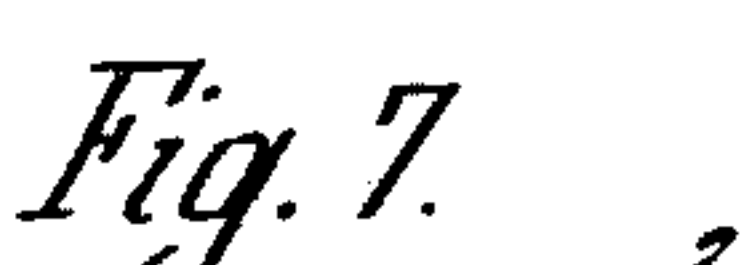
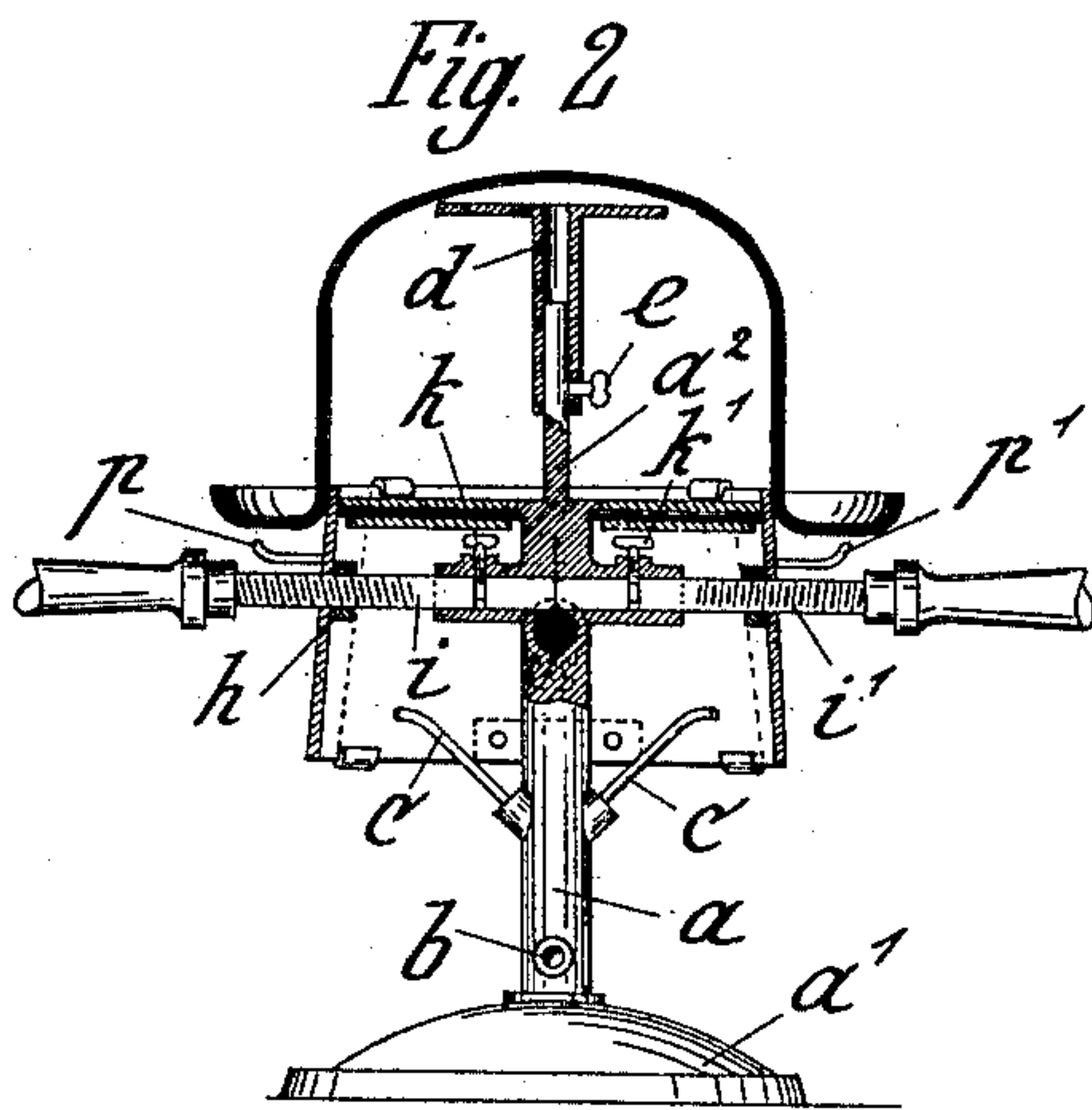
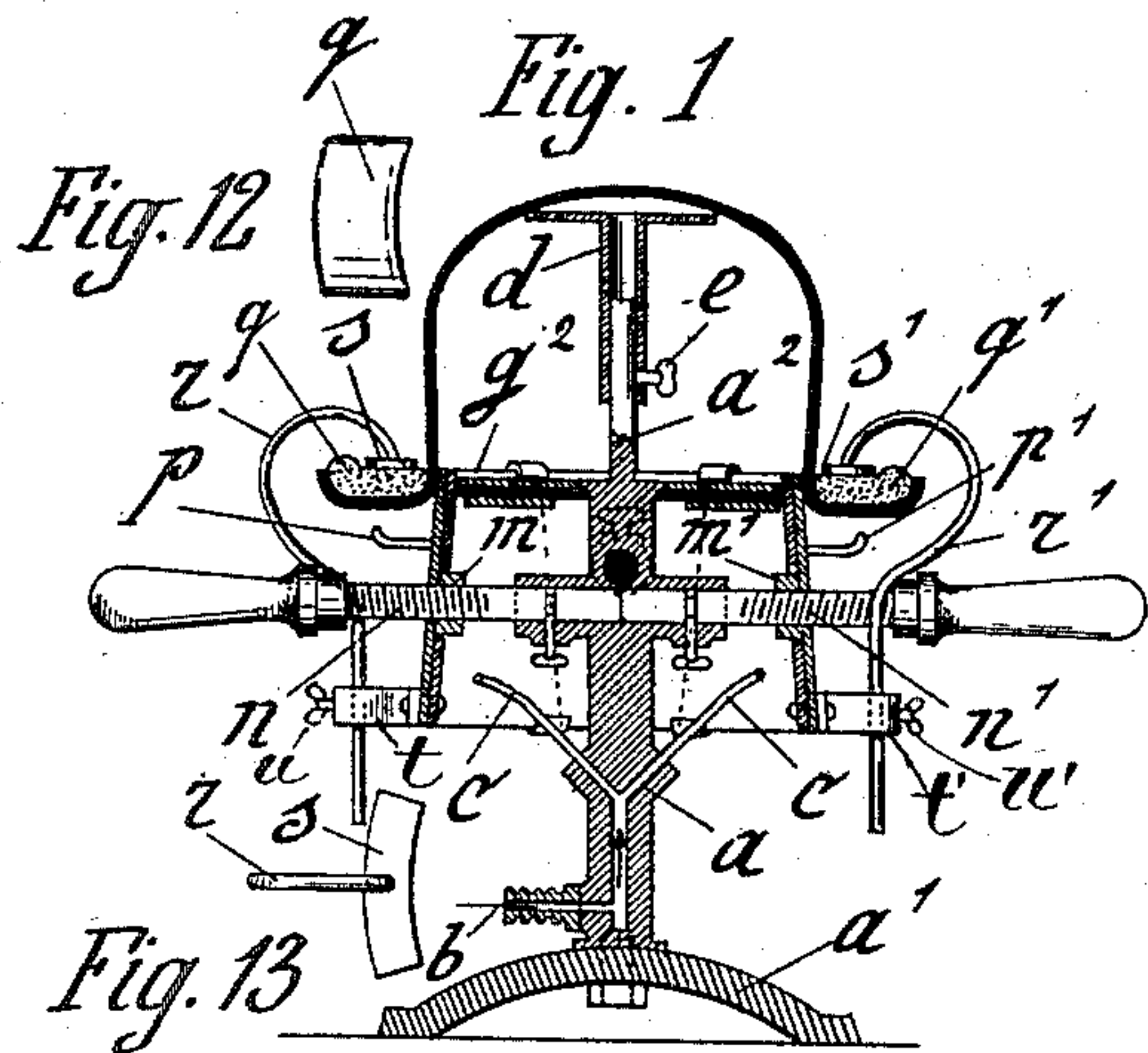
Patented Apr. 8, 1902.

C. MÜLLER.

HAT BLOCK.

(Application filed Aug. 19, 1901.)

(No Model.)



Witnesses.
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UNITED STATES PATENT OFFICE.

CARL MÜLLER, OF BRETTEEN, GERMANY.

HAT-BLOCK.

SPECIFICATION forming part of Letters Patent No. 697,214, dated April 8, 1902.

Application filed August 19, 1901. Serial No. 72,527. (No model.)

To all whom it may concern:

Be it known that I, CARL MÜLLER, a citizen of the German Empire, residing at the town of Bretten, in the Grand Duchy of Baden, Germany, have invented a new and useful Hat-Block, entitled "Improved Stretching-Block for Hats," of which the following is a specification.

This invention relates to a contrivance whereby hats or caps ready for sale cannot only be stretched to any desired size, but brought to the shape of any head, and thus made to remain. Hitherto the contrivances in use for such objects necessitate the drawing down by hand of the hat to be treated over an arrangement of staves or bars, so that often the brim of the hat is crushed and spoiled, and, as well, the hat so treated will in a few hours' time after sale resume its original form, to the annoyance of the purchaser. There are also contrivances for stretching the sides of which can be pressed outward by means of screws; but such mere pressure is not sufficient when it is sought to alter a stiff hat ready for use, because that cannot be satisfactorily accomplished except with a simultaneous heating of the block and also because the pressing outward unitedly of the separate plates causes sharp ridges to be formed between them, which is altogether unsatisfactory, as the block should present one even exterior surface.

The subject of my invention is an apparatus by means whereof a hat ready for sale at a hatter's can by purely mechanical means not only be reshaped within a few minutes so as to fit an abnormal head, but within ordinary measurements can be stretched as desired and will remain as thus altered.

The main feature of the invention is the arrangement of an apparatus which with a simultaneous continuing heating of the block and consequent softening of the hat manipulated will permit an alteration of the shape and dimensions of such hat and in which apparatus the exterior surfaces of the block through every alteration always remain even and closely conjoined, so that sharp ridges and wrinkles, which otherwise would result from pressure on the heated hat and damage it, do not occur.

In the accompanying drawings, Figure 1 is

a longitudinal section of the apparatus in the direction of a hat's width. Fig. 2 is a section in the hat's length; Fig. 3, a perspective view of the entire apparatus; Fig. 4, a plan view of the plate, which is firmly attached to the stand; Fig. 5, a plan view of the block in closed position; Fig. 6, a plan view of the block while being operated to lengthen the hat; Fig. 7, a plan view of the block while being operated to increase the breadth of a hat; Fig. 8, a part of the longitudinal section of the block in real size; Fig. 9, a side view of the block in its length; Fig. 10, a side view of the block in its breadth; Fig. 11, a hanging plate; Fig. 12, cushion used beneath the brim-holder, and Fig. 13 brim-holder with part of its movable shank.

The entire apparatus is easily transportable and comprises a stand *a*, having a foot *a'*. The stand at its lower part is hollow where gas is introduced through a rubber hose at *b* and then forks upward and carries two small pipes *c*, through which the gas passes for combustion. The uppermost part *a²* of the stand is made smaller and takes a hat-carrier *d*, composed of a pipe having an umbrella-shaped top. This carrier is movable up and down and fixed by a screw *e*, according to the depth of the crown of the hat treated. At the shoulder whence springs this smaller uppermost part of the stand is fastened a stiff elliptical plate of sheet metal *f*, Fig. 4, which conforms in its circumference somewhat to that of the smallest normal human head. Similar in outline to this plate *f* is the hat-block having a cover-plate working thereon in two parts *g g'*. These two parts are made so as to be drawn asunder in their longer axis by means of attached female screws *h h'*, Fig. 2, in which work screw-spindles *i i'*. Small screw-pins *k k'*, working in nuts in such screw-spindles, prevent the spindles from moving sidewise. Thus these two parts *g g'* must follow the motion of the screws. In this way a hat can be stretched lengthwise. To effect the sidewise stretching, plates *l l'* are arranged outside the shell of the parts *g g'*, to which also female screws *m m'* are attached and through which screw-spindles *n n'* work. In like manner as described with the other spindles these parts *l l'* of the block are so worked as to be drawn asunder

sidewise to effect the stretching of a hat at its sides. Portions of the ends of these block-plates $l\ l'$ are bent over and form guiders or claws $l^2\ l^3$, which are hooked on the upstanding edges $g^2\ g^3$ of the parts $g\ g'$, Figs. 6 and 7.

Should the wearer of a hat about to be stretched to fit him have a protuberance anywhere on his head, then at the corresponding place on the block an extra suitably thicker or thinner plate o is hung, Fig. 11, (see, too, Fig. 9,) and thereby the hat at such spot will be correspondingly enlarged.

While a hat is being stretched, any bending or deforming of the brim is prevented by the pressure of such brim lightly yet sufficiently against ledges $p\ p'$ by means of curved shanks $r\ r'$, terminating at their upper ends in holders $s\ s'$, beneath which cushions $q\ q'$ are placed on the brim of the hat. The shanks $r\ r'$ are held tightly fixed in brackets $t\ t'$ by thumb-screws $u\ u'$ on the blocks.

The manipulation of this apparatus is as follows: After it is determined where any alteration is needed and the spirit or gas beneath the apparatus has been lighted the hat is placed on the block. The screws $i\ i'$ and $n\ n'$ are slightly turned, so that the whole inner circumference at the brim of the hat lies against the block, while the brim sits on the ledges $p\ p'$. Then a cushion or pad corresponding with the ledges $p\ p'$ is laid at each side on the brim of the hat beneath the brim-holders $s\ s'$, and thus held down firmly yet lightly by means of the curved shanks $r\ r'$ and their screws. If a longer form for the hat be wished, then after that the block is so far warmed that the brim feels soft to the touch the screws $n\ n'$ are turned backward somewhat, and the screws $i\ i'$ are tightened until the right length is obtained and a suc-

cessful result shown by fitting on the hat. Supposing that the correct width of the hat is gained by the proper manipulation of the spindles, then the flame is extinguished and the hat allowed to cool on the block. So soon as the hat is cooled it regains its original stiffness. By leaving a lengthwise screw in its original position while the opposite similar screw and both side screws are tightened more room can be made for a broad forehead and other such like alterations effected for the accommodation of the wearer.

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

An apparatus for stretching or altering the form and dimensions of hats without alteration of the brim comprising a stand having a foot a' said stand having a passage for gas forked at its upper end, an elliptically-shaped plate f secured to the stand on which works a hat-block in two parts $g\ g'$ carrying side plates $l\ l'$ having claws $l^2\ l^3$ to engage the upper edge of the plates $g^2\ g^3$ said parts $g\ g'$ and plates $l\ l'$ being operated by means of female screws $h\ h'$, $m\ m'$ and screw-spindles $i\ i'$, $n\ n'$ respectively, said stand a at its upper end being reduced and carrying a hollow hat supported adjustable thereon by means of a screw e , brim-holders $s\ s'$ provided with cushions $q\ q'$ and curved shanks $r\ r'$ carried adjustably in brackets $t\ t'$ on the hat-block, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CARL MÜLLER.

Witnesses:

JACOB ADRIAN,
H. W. HARRIS.