

No. 827,162.

PATENTED JULY 31, 1906.

A. F. LESLER.
SANITARY DEVICE FOR CLOSETS.

APPLICATION FILED JUNE 21, 1905.

3 SHEETS—SHEET 1.

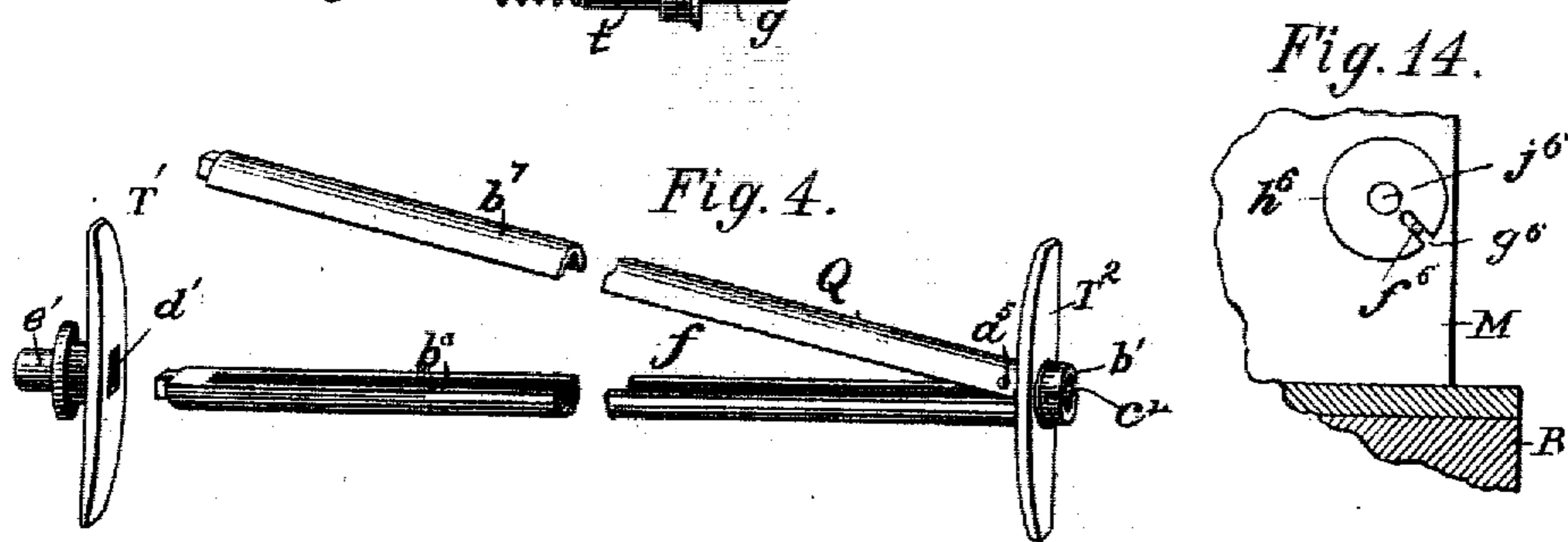
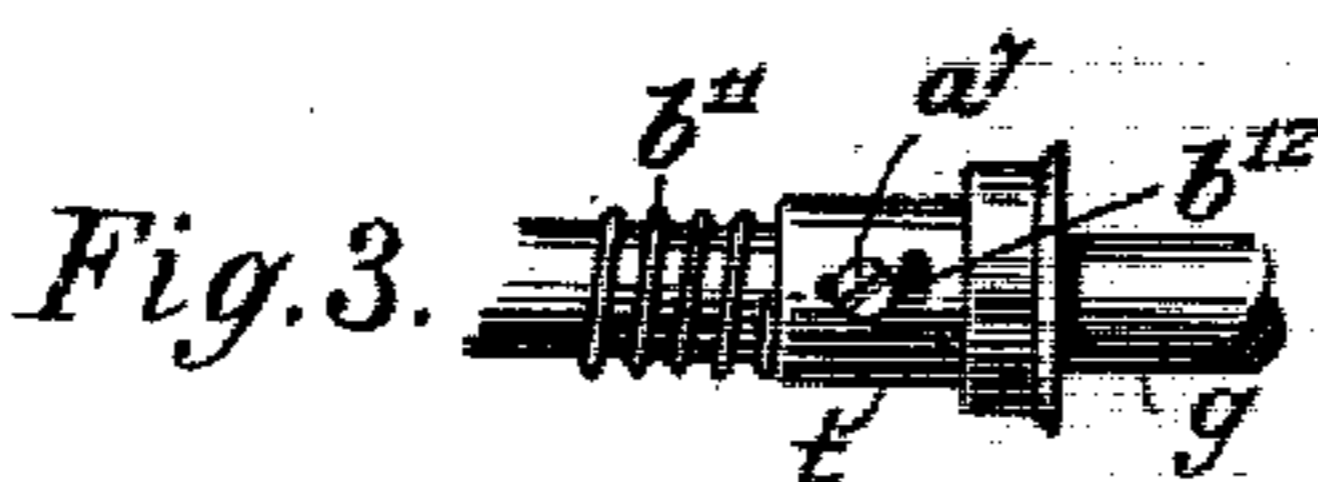
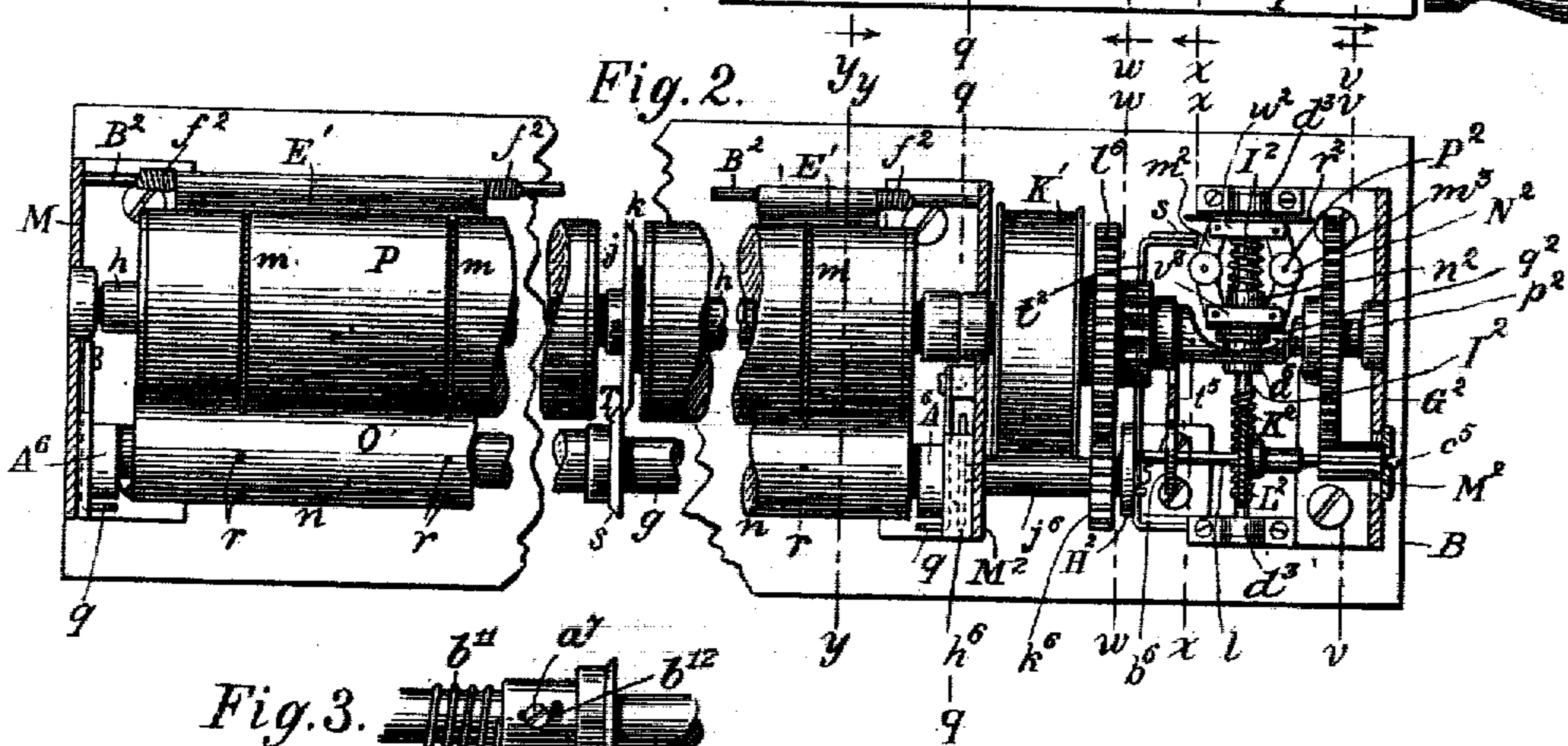
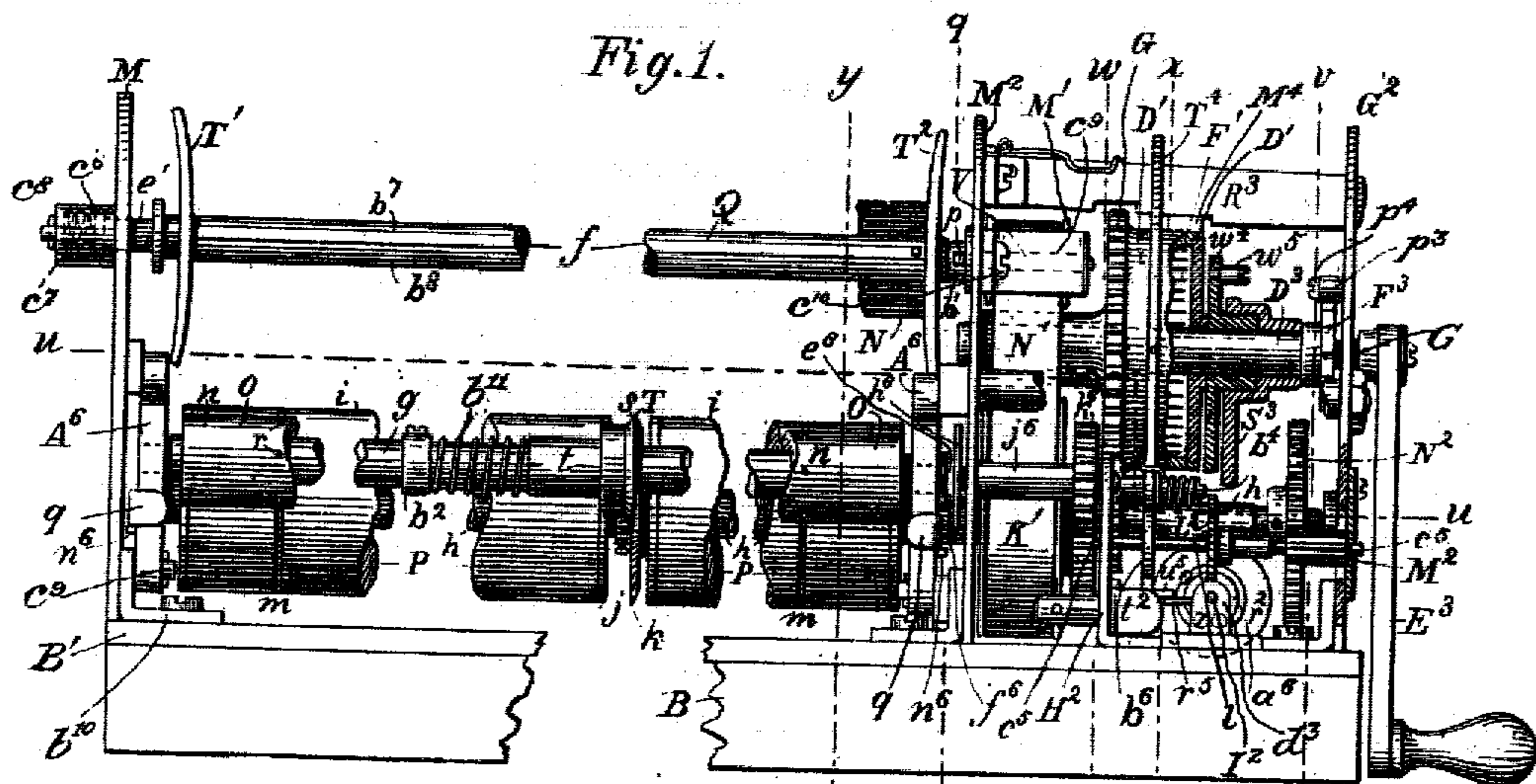
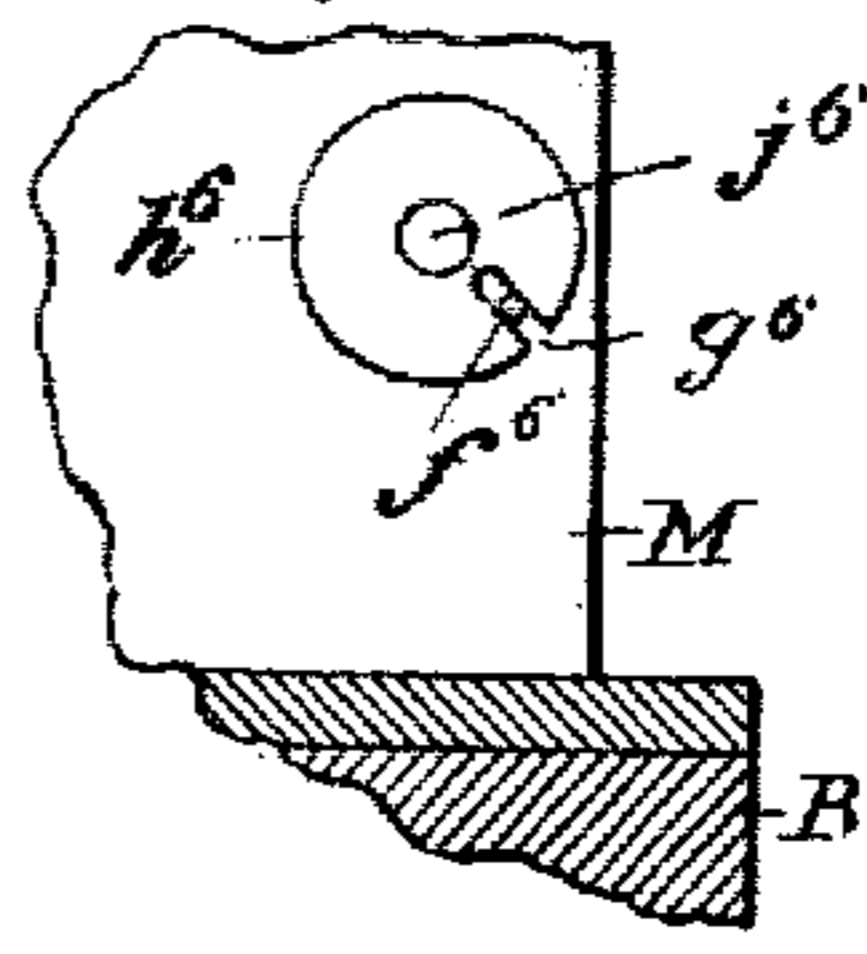


Fig. 14.



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Fig. 5.

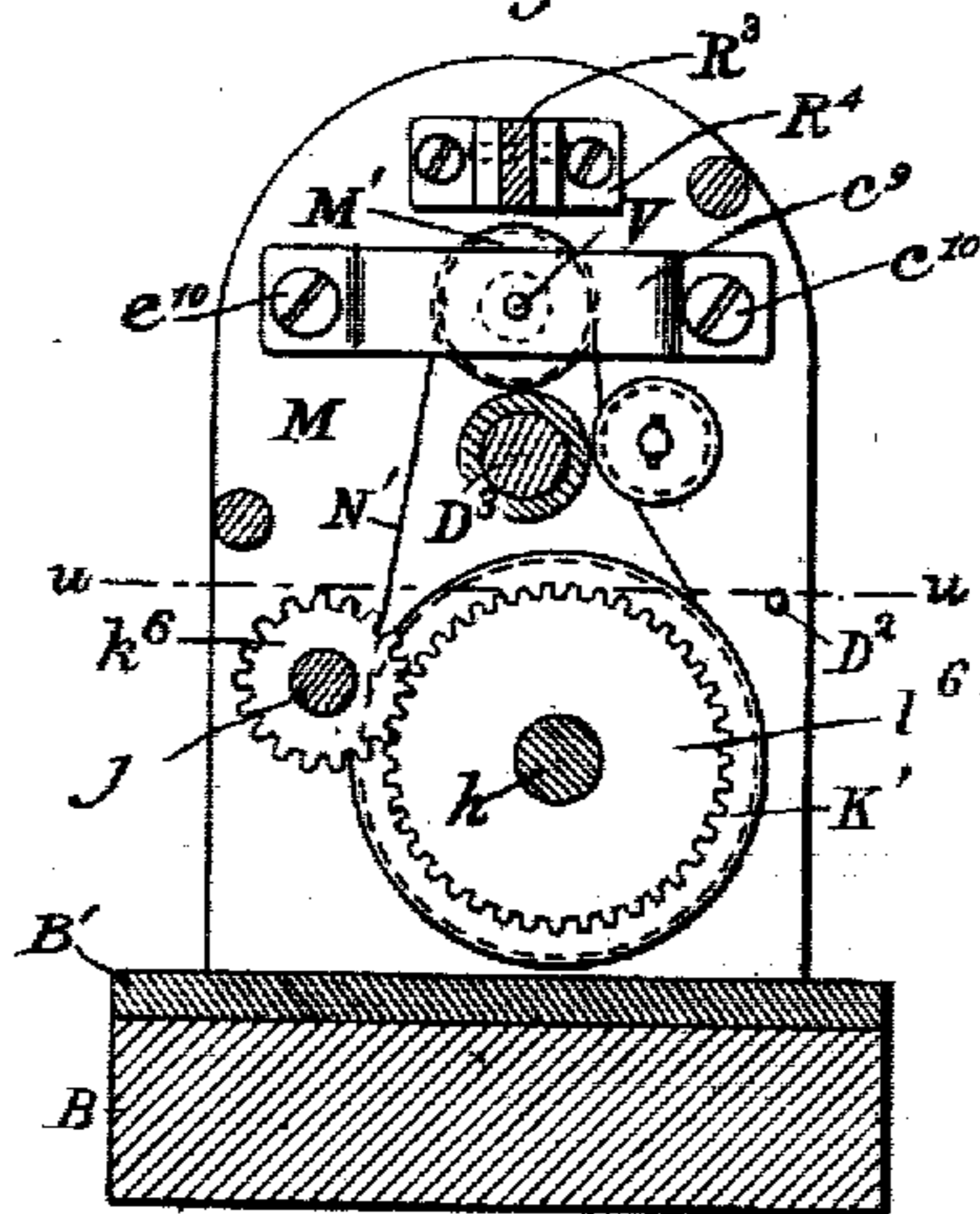


Fig. 6.

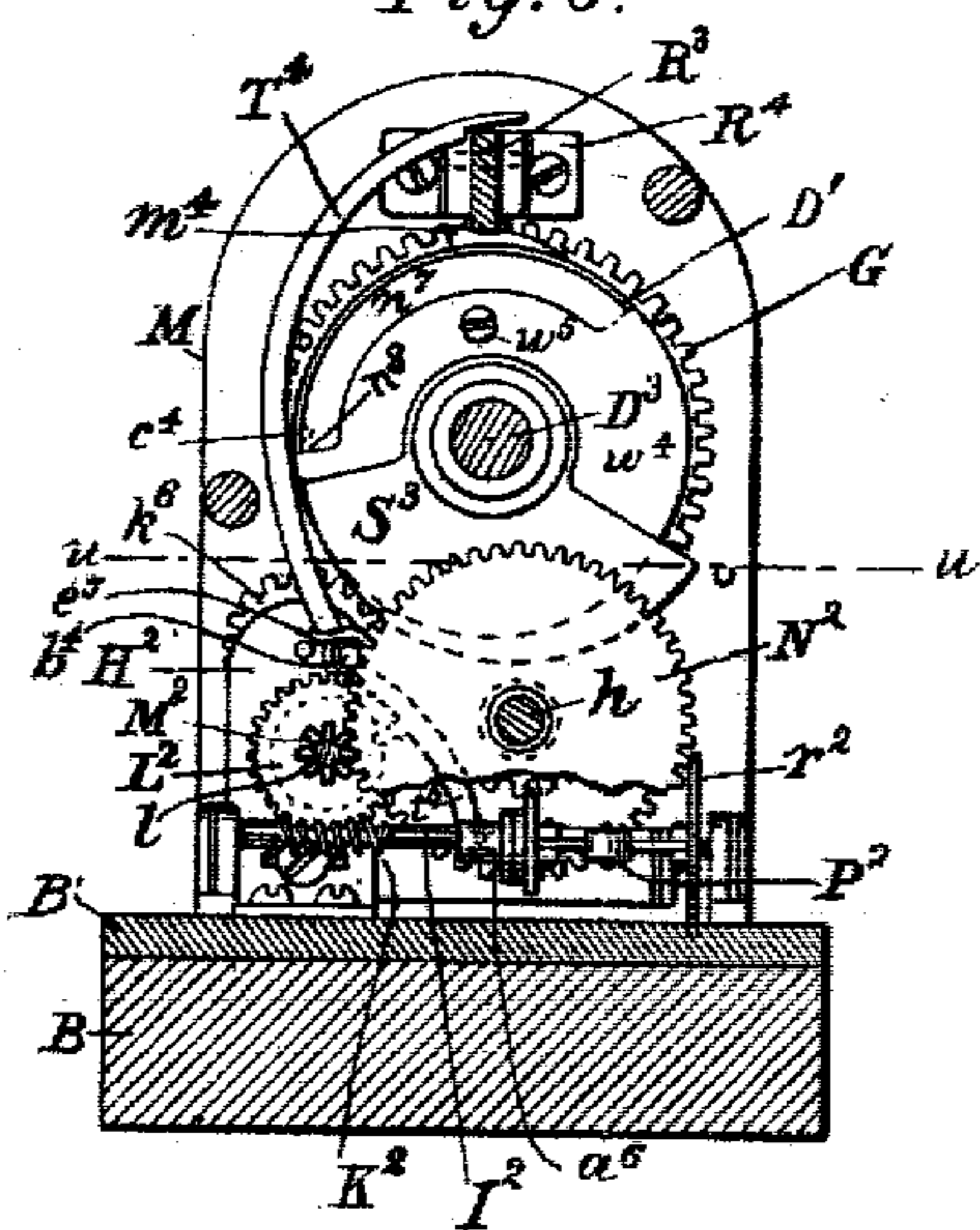


Fig. 7.

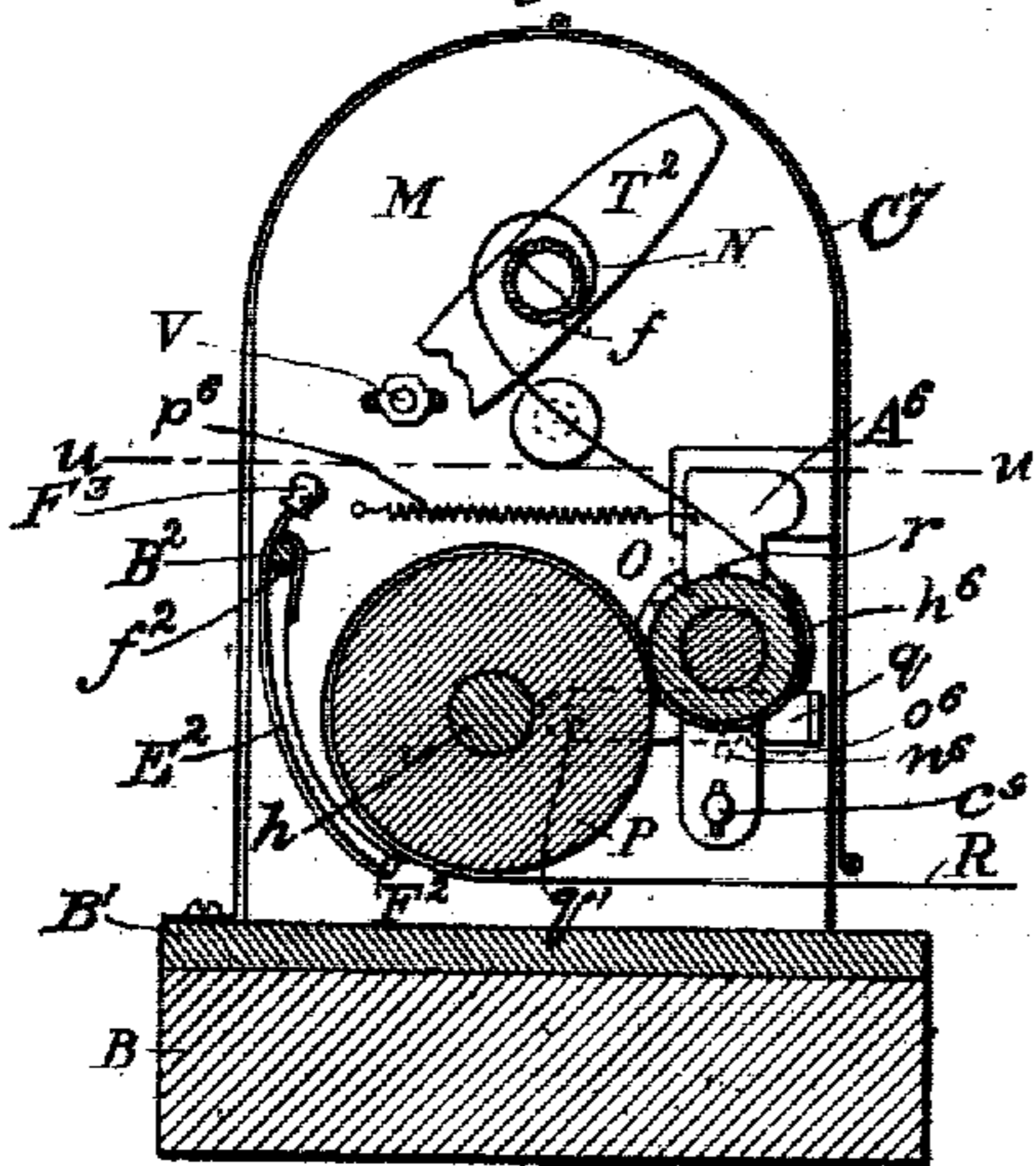


Fig. 8.

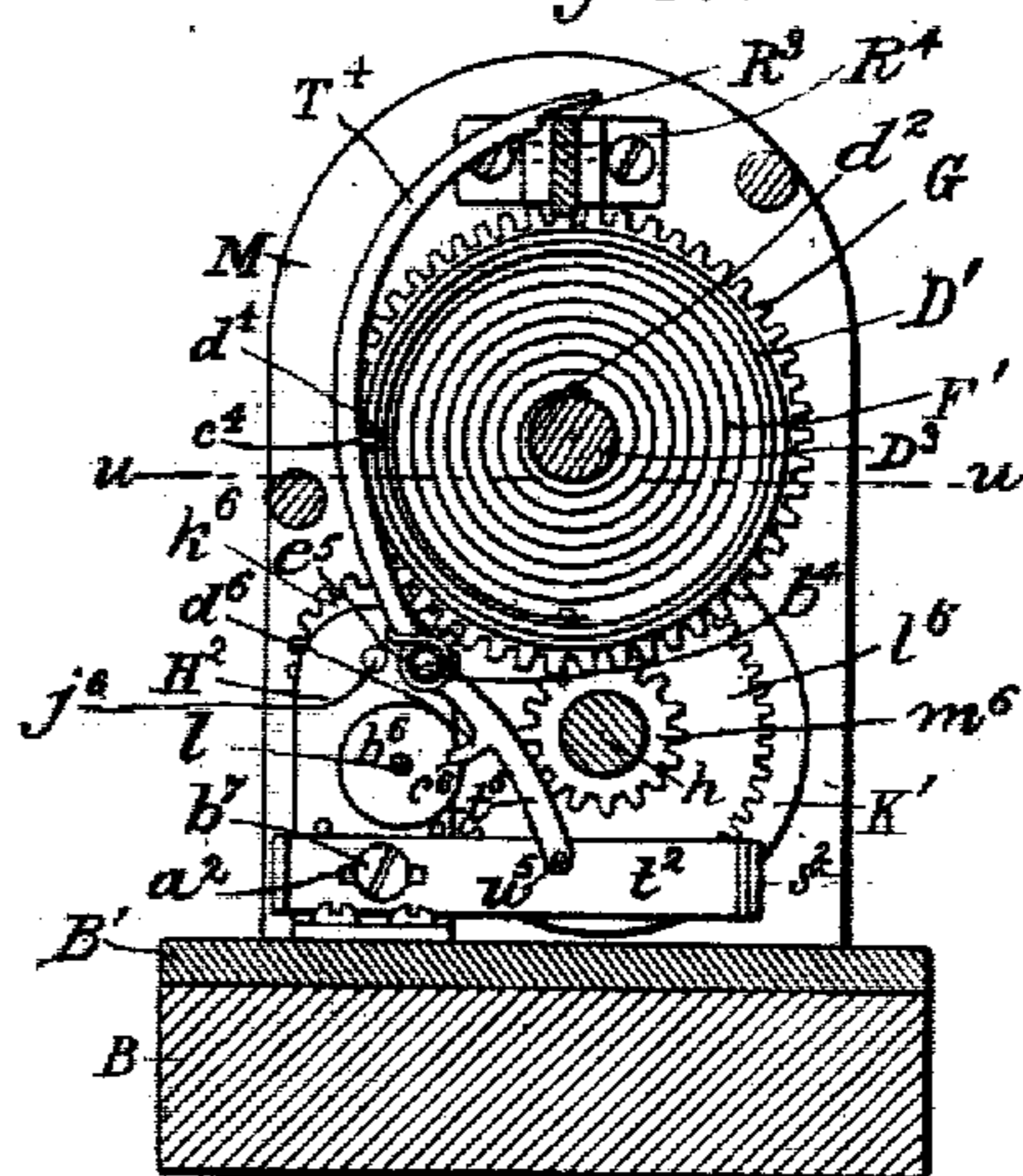


Fig. 9.

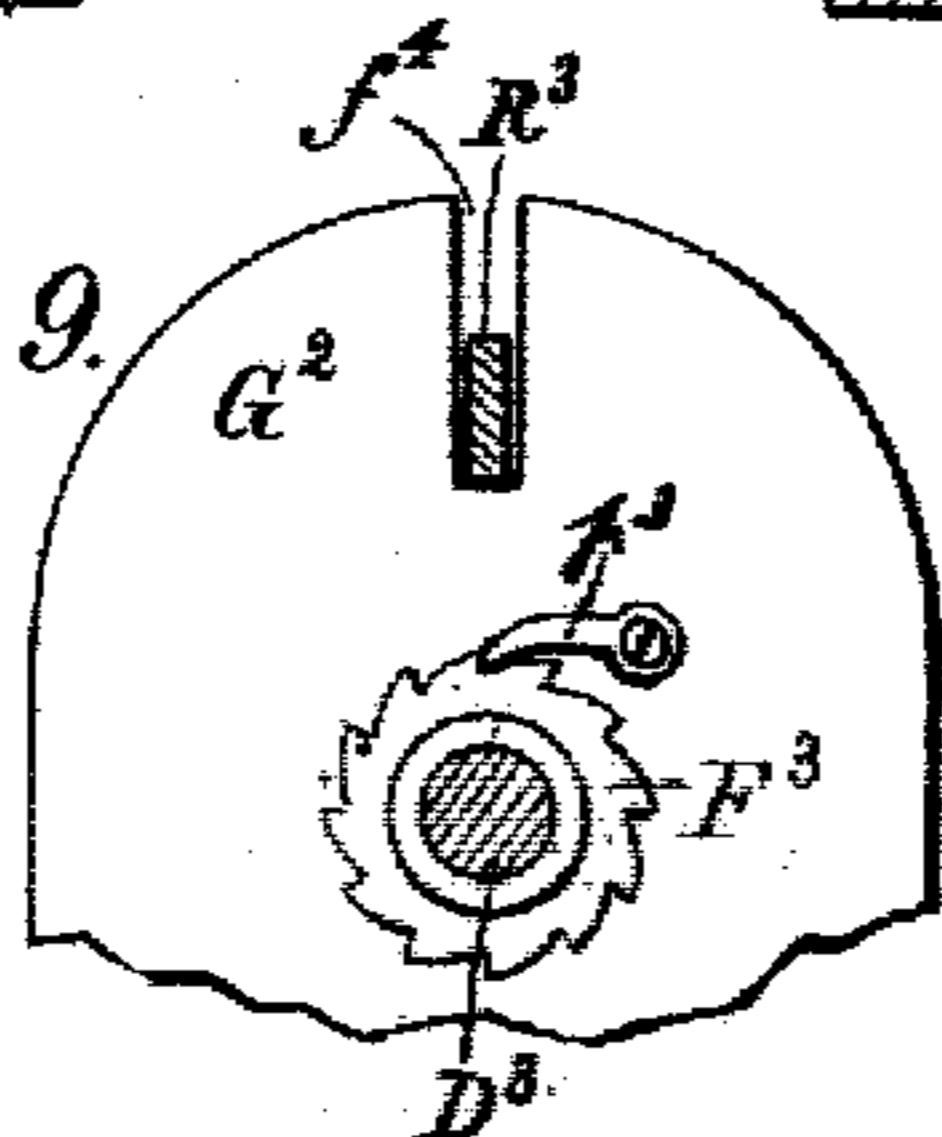
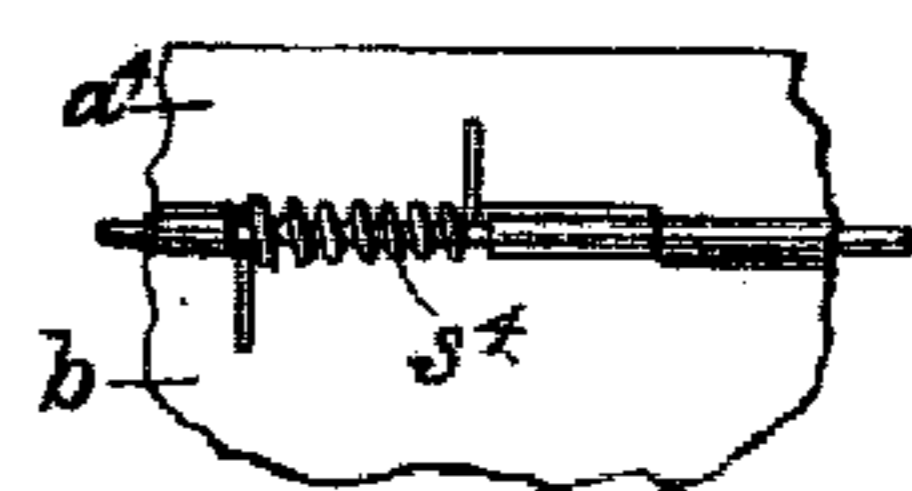


Fig. 12.



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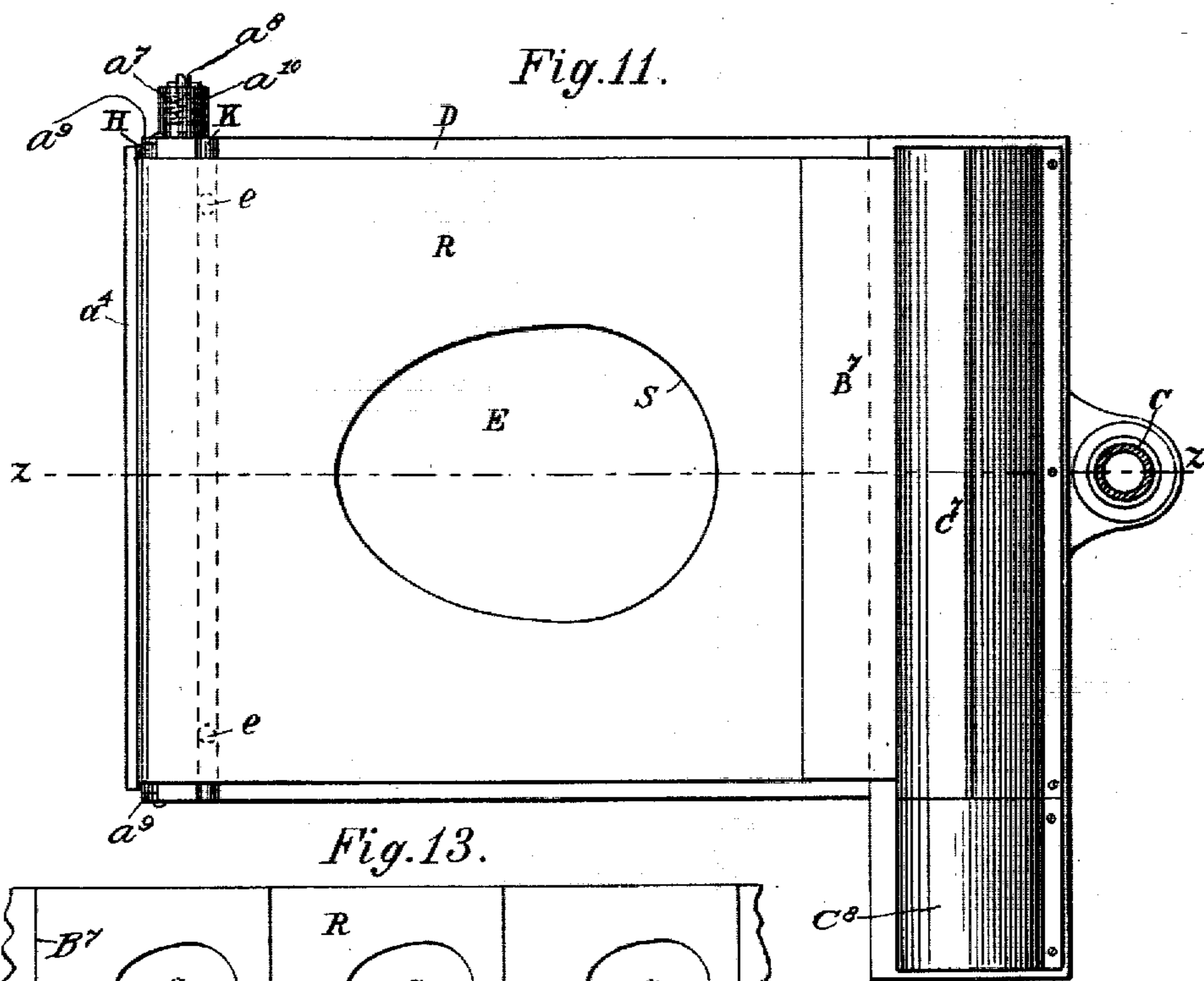
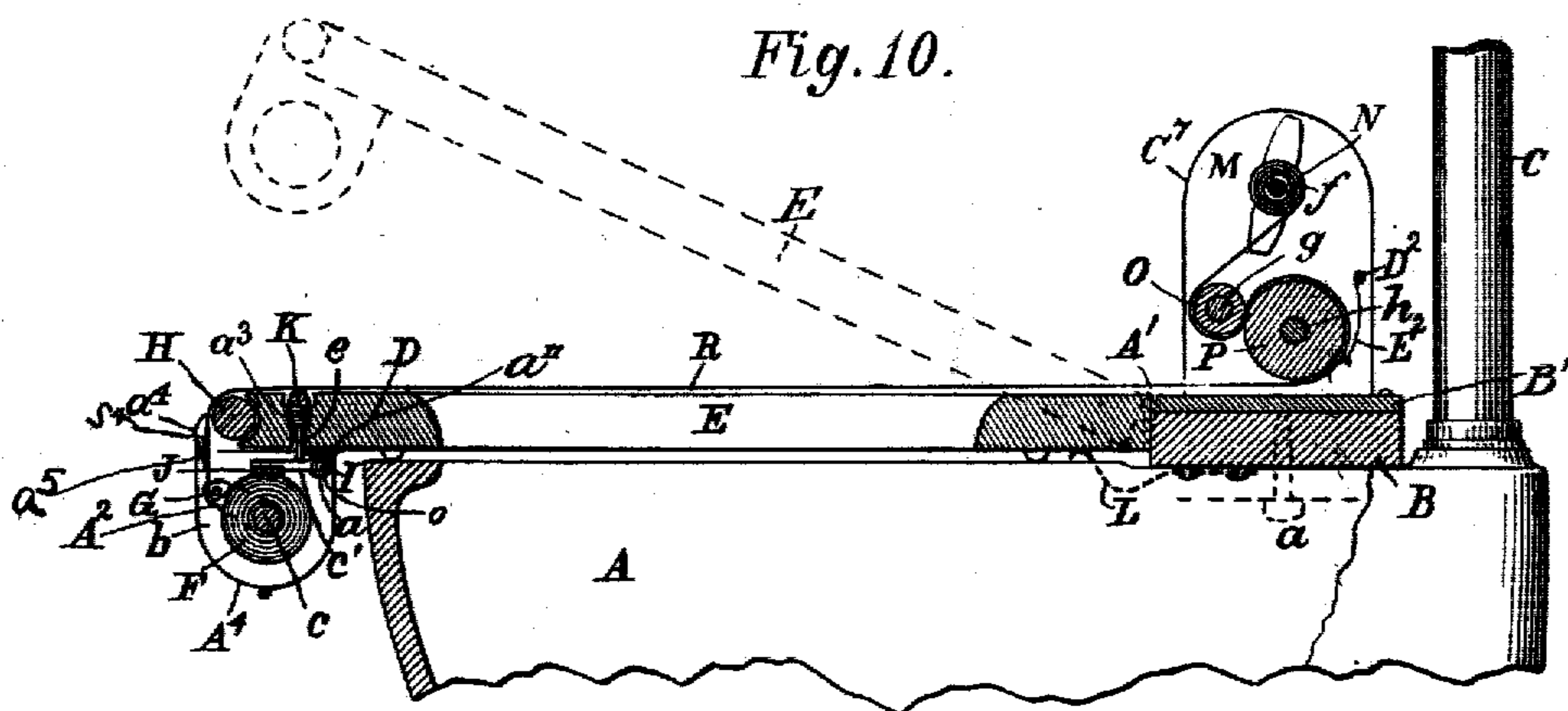
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3 SHEETS—SHEET 3.



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SANITARY DEVICE FOR CLOSETS.

No. 827,162.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed June 21, 1905. Serial No. 266,236.

To all whom it may concern:

Be it known that I, ALBERT F. LESLER, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Sanitary Devices for Closets, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to sanitary devices, and more particularly to sanitary devices for closets.

One of its objects is to provide a sanitary covering for a closet-bowl.

Another object is the provision of mechanism designed to draw and determine the movement of a sanitary protective covering for a closet-seat, such that while successive portions are presented to the users the employment of the closet for other purposes is not hindered.

Another object is to provide mechanism for drawing and exposing automatically upon a closet-seat successive portions of a sanitary covering having openings therein corresponding to that in the closet-seat, the mechanism being so constructed as to determine accurately the extent of covering so exposed, resulting in an absolute registry at all times between the opening in the closet-seat and the corresponding opening in the covering.

Another object is to provide means whereby a sanitary covering after being once used will be mutilated and destroyed, thereby rendering it unfit for further use.

Another object is the provision of means adapted to compensate for the constantly-varying leverage existing between the supply-roll and the rewinding or take-up roller for the sanitary covering.

Another object is to provide a sanitary and waterproof covering for a movable or tiltable closet-seat.

A further object is to so construct a device of the above type that the same may be readily adapted and applied to closet-bowls of any type.

Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts, which will be exemplified in the mechanism hereinafter described, and the scope of the application of

which will be indicated in the following claims.

In the accompanying drawings, wherein is illustrated one of the several various possible embodiments of my invention, Figure 1 is a front elevation of the same, partly broken away and partly in section, showing the winding mechanism and the motor for controlling the operation of the same. Fig. 2 is a horizontal section of the mechanism illustrated in Fig. 1, taken on the line *u u* of Fig. 1. Fig. 3 is a view of a detail of construction shown in Figs. 1 and 2. Fig. 4 is a view in perspective, showing the take-up roll for the sanitary covering. Fig. 5 is a transverse sectional view taken on the line *w w* of Figs. 1 and 2. Fig. 6 is a similar view taken on the line *v v* of Figs. 1 and 2. Fig. 7 is a similar view taken on the line *y y* of Figs. 1 and 2. Fig. 8 is a similar view taken on the line *x x* of Figs. 1 and 2. Fig. 9 is a view, partly in section, taken on the line *v v* of Figs. 1 and 2, but looking in an opposite direction to that of Fig. 6. Fig. 10 is a vertical longitudinal section of a closet bowl and seat, taken on the line *z z* of Fig. 11, showing my invention applied thereto. Fig. 11 is a plan view of a closet-seat having my apparatus arranged thereon. Fig. 12 is a view of a detail of the mechanism shown in Fig. 10. Fig. 13 is a view showing a portion of a strip of sanitary covering for a closet-seat, showing the openings and guide-lines. Fig. 14 is a view, partly in section, taken on the line *q q* of Figs. 1 and 2.

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

Preliminary to a description of the specific features of my invention and as conducive to a clearer understanding of the general objects thereof it may here be noted that on account of the more or less promiscuous use to which closet-seats are subjected the desirability of rendering the same sanitary in all respects has long been recognized. I have therefore found it desirable in the accomplishment of the above and other purposes to provide an antiseptic waterproofed covering for a closet-bowl and have also provided mechanism adapted to be operated intermittently to draw successive portions of said material over the seat portion of the bowl such that the support for said covering may be moved to carry the same from the bowl in a direc-

tion which will not disturb the connection of the material with the drawing means. I have, moreover, found it desirable to provide a mechanism adapted automatically to control and determine absolutely the periods of operation of the drawing means, so that the openings in said covering when at rest may at all times be in perfect registry with the corresponding opening in the seat portion of the bowl. In order to provide against a second usage of the sanitary covering, I have found it essential that means be provided to mutilate and destroy such covering after the same has been once used.

15 In the attainment of the advantageous results hereinbefore broadly indicated I have so constructed the mechanism that the same may be readily applied to closet-bowls of all designs without affecting their use in any way for the purposes for which they are commonly employed.

The above and other advantages are secured in constructions of the nature of that hereinafter described.

25 Referring now to the drawings, there is shown at A a closet-bowl which may be of any suitable design, having resting thereon the usual base-board B, rigidly secured thereto by suitable means—as, in the present instance, by screws a . Leading from a source of supply into the bowl is the usual flush-pipe C, and hinged to base-board B at A' is the seat D, having the usual opening E, the same being of any desired shape or configuration. 30 At this point it may be noted that the closet as thus described is of a well-known type in general use.

A bifurcated casing A⁴, fixedly secured underneath seat D, has hinged thereto at a^5 a sealing-plate a^4 , controlled by a spring s^4 , the purpose of which will be apparent hereinafter. Casing A⁴ is closed at the ends thereof and at the line of union between it and the complementary part b is provided with bearings a^{10} for the roll-carrying spindle c , removably mounted therein and maintained in operative position by means of spring a^7 , acting on pusher-pin a^8 .

Spindle c is designed to carry a roll F of prepared paper or other suitable material R, hereinafter to be specifically described, and to deliver the same between sealing-plate a^4 and an antifriction-roller H, journaled between brackets a^9 , rigidly secured to closet-seat D. Sealing-plate a^4 is held frictionally against the prepared covering R by means of spring s^4 , insuring a constant engagement between said covering and antifriction-roller H. It will accordingly be seen that casing 50 A⁴ is entirely closed, and the prepared sanitary covering R, stored therein, is thereby protected against soiling and contamination.

In order to properly tension the unrolling portion of covering R and to compensate for 65 the constantly increasing power required to

unwind the same, due to the decreased leverage as roll F is gradually unwound, I provide a friction-plate J, carried by arms e' , which are pivotally mounted upon rod I, extending longitudinally of casing A⁴, and said friction-plate is maintained in engagement with roll F by spring a^{11} . It will be noted that as roll F diminishes in size friction-plate J descends by gravity and also by reason of the pressure imparted by spring a^3 , the force of spring a^{11} being gradually diminished until friction-plate J is maintained against roll F by gravity alone. In order to take up any slack in the covering R when the same has been drawn upon closet-seat D by the mechanism 80 presently to be explained, I provide rod G, carried by arms A², which are journaled exteriorly of bearings a^{10} . Rod G rests upon the upper surface of covering R and takes up any slack that may occur therein.

Referring now particularly to my water-proofed sanitary covering R, the same consists, as clearly shown in Fig. 13, of a strip of material, preferably paper, of a width substantially equal to that of closet-seat D and may be of any desired length. Openings S are cut at regular intervals and correspond in shape, size, and direction to the opening E in closet-seat D.

One method of preparation of covering R, which I have found desirable, is to pass a continuous roll of paper through a bath containing melted paraffin or a warm solution of paraffin in benzin or any of the tallow series of fats and oils or linseed or other series of drying-oils. The paper is then dried and finally rolled up in rolls of suitable length. Another method of preparing this antiseptic covering which I have found advantageous is to pass the same through a solution of diluted sulfuric acid so as to parchementize it and render it waterproof, after which it may be rendered antiseptic by impregnating it with a solution containing bichlorid of mercury. Another method which I have also found advantageous and which is perhaps attended by the best results is to pass the same through a bath containing melted paraffin or paraffin dissolved in benzin with bichlorid of mercury (HgCl₂) preferably in the proportion of one part of bichlorid of mercury to five hundred parts of liquid paraffin. It will be seen, therefore, that the paper or other material so prepared operates as a protective medium between the body of the user and the closet-seat, the sanitary quality thereof preventing the contraction of diseases commonly contracted from closet-seats which are used promiscuously in public places. The waterproofing of the paper not only prevents the absorption thereby of urine or other liquids, and thus operates as a sanitary agent, but also prevents the weakening of the connecting-strips by reason of being wetted, and thus maintains the integrity of the mechanism, in- 130

asmuch as the paper, as will be apparent hereinafter, acts as a connecting medium between the winding mechanism and the storage mechanism or supply-roll F.

5 To prevent users of the closet-seat from accidentally slipping the protective covering R along the same, there is provided a member K, extending transversely and arranged slightly above the upper surface of seat D and located
10 in a depression therein. Member K is provided with pins e , bearing upon friction-plate J, and is held in its upward position by means of springs a^3 . It will be seen that any weight applied to member K—as, for instance, when
15 the closet-seat is in use—will tend to force friction-plate J against roll F to prevent an accidental rotation thereof.

The openings S in antiseptic covering R may be cut in any desired manner before the
20 same is made up into the roll F, said covering extending over closet-seat D and is provided between each of said openings at equal distances from each other with indicating marks or lines B^7 , printed or otherwise produced
25 thereon, the purpose of which will be apparent hereinafter.

Upon supporting base-plate B' , secured to base-board B, are securely mounted, by means of brackets b^{10} , standards M, M^2 , and G^2 , de-
30 signed to support the operating-rollers and the mechanism for driving the same. Shaft h is journaled in standards M, M^2 , and G^2 and has positioned thereon between standards M and M^2 one of the drawing-rollers P, which is
35 divided into two spaced sections between which is positioned upon shaft h a circular knife j , having a beveled edge k arranged substantially midway between said spaced sections.

40 Journaled upon studs c^9 , extending from brackets b^{10} , are arms A^8 , which are adapted to support and between which is journaled a shaft g , carrying a second drawing-roller O, also divided into two spaced sections, be-
45 tween which is slidably mounted a sleeve t , carrying a coacting circular knife T, having a beveled edge s , said knife being held when rollers O and P are in engagement, as shown in Figs. 1 and 3, against knife j by means of
50 extensile spring b^{11} , encircling shaft g and exerting pressure between sleeve t and an adjustable collar b^2 , secured upon shaft g . The sections of roller P are arranged in proximity to each other in order that substantially the
55 entire surface of the roller may be utilized to support covering R, the sections of roller O being arranged at a considerable distance from each other, so that the drawing strain may come near the edges of covering R or
60 upon the connecting-strips between openings S. Sleeve t is provided with a bayonet-slot b^{12} , in which is located a screw a^7 , secured to shaft g . Drawing-roller O is provided with a series of radially-arranged sharp pins r , which
65 enter concentric recesses in drawing-roller P,

and roller O is constantly urged toward roller P by means of springs p^6 , extending between arms A^8 and a fixed point of standards M and M^2 , and when it is desired to separate the roll-
ers, as for the purpose of inserting the strip of
70 covering R therebetween, the operation may be accomplished by drawing arms A^8 outwardly until the slots o^6 of latches q , loosely mounted upon pins q' , extending from stand-
75 ards M and M^2 , engage with similarly-mounted pins n^6 , extending from arms A^8 . Roller Q may therefore be held out of engagement with roller P during the operation of insert-
ing covering R therebetween until released by the detachment of latches q .
80

Rewinding or take up roller Q is comprised of split hollow spindle f , one member, b^7 , being
hingedly secured to the other member, b^8 , at a^5
adjacent a guide-flange T^2 . The opposite
85 ends of each of members b^7 and b^8 are preferably squared and when in a closed position, as clearly shown in Fig. 1, are adapted to enter a preferably rectangular opening d' in the
guide-flange T' , which is provided with a
90 journal e' , adapted to enter a bearing c^8 in standard M. Bearing c^8 has located therein a spring c^7 , acting on pusher-pin c^8 to main-
tain roller Q in position, as shown in Fig. 1.

Spindle f extends through guiding-flange
95 T^2 and is provided with a hollow end or recess b' to receive the end of a short shaft V, journaled at one end in standard M^2 and at the opposite end in a U-shaped piece c^9 ,
fixedly secured to standard M by suitable means, as screws c^{10} . A transverse slot c^{11} in
100 the end of spindle f receives a pin p , positioned in the end of shaft V.

Journaled upon a rod B^2 and extending be-
tween standards M and M^2 are friction-plates
105 E' and E' , the function of which is to hold the antiseptic covering R in engagement with drawing-roller P, and which are constantly urged toward said roller P by springs f^2 , and are connected at their lower ends by rod F^2 .
110 A curved comparatively rigid rod E^2 , pivotally attached to connecting-rod F^2 , has mounted eccentrically thereon a milled knob F^3 , as clearly shown in Fig. 7. It will be ob-
vious that a rotation of rod E^2 will operate to withdraw friction-plates E' E' from roller
115 P, allowing the insertion of covering R between friction-plates E' E' and drawing-roller P.

I will now describe the mechanism where-
by the rollers O and P are caused to draw and
120 rewinding-roller Q is operated to take up a given portion of the sanitary covering R across closet-seat E, such mechanism operating to absolutely determine the extent of
125 movement of said drawing-rollers.

To an arbor D^3 , journaled in standards M^2 and G^2 , there is secured at its inner end at d^2
a coiled mainspring F' , as clearly shown in
Fig. 8, the outer end of which is secured to a
130 drum D^4 , journaled on arbor D^3 , which drum

carries a gear-wheel G. Gear-wheel G meshes with a pinion m^6 , secured to shaft h of drawing-roller P. Gear-wheel l^6 , secured to shaft h , meshes with a pinion k^6 , carried by short shaft j^6 , journaled between a bracket H^2 and standard M^2 . Shaft j^6 is provided with a reduced end extending through standard M^2 , to which is secured a disk h^6 , carried by a crank-arm e^6 , positioned upon the end of shaft g of drawing-roller O. It will therefore be seen that short shaft j^6 , by reason of the play allowed upon f^6 in slot g^6 , will operate to drive roller O, although the same be out of alinement therewith—as, for instance, when the sanitary covering R extends between the drawing-rollers O and P. At this point it may be noted that the circumference of drawing-roller O is in the present instance one-half of that of drawing-roller P and that the gearing is so proportioned as to drive roller O with twice the angular velocity of roller P, thereby insuring an equal surface velocity of each of said rollers. It is of course obvious that the relative dimensions of rollers O and P may be proportionately varied with a corresponding change in the number of teeth in each of gear-wheels l^6 and G and openings m^6 and k^6 , it being only essential that the surface velocity of each of rollers O and P always remain equal. Positioned upon shaft h between gear-wheels l^6 and standard M^2 is a pulley-wheel K' , which is adapted to drive, by means of belt N' , a pulley-wheel M' , secured to shaft V, which is adapted in turn to drive take-up roller Q, as hereinbefore explained. Belt N' is of such tension as to slide slightly upon pulley-wheel M' to compensate for the increase in size of the roll of the used strips of covering R as the same is wound upon roller Q. From the above description it should be obvious that a rotation of drum D' through the train of gears will operate to drive rollers O and P and take-up roller Q.

Keyed to shaft h , adjacent the outer end thereof, is a gear-wheel N^2 , meshing with a pinion M^2 , carried by shaft l , journaled at c^5 between bracket H^2 and standard G^2 . Shaft l carries a screw-gear L^2 , which meshes with a worm-screw K^2 upon shaft I^2 , journaled in brackets d^3 and d^3 . Screw-gear L^2 and worm-screw K^2 comprise what may be termed a "reversed worm," inasmuch as the power is transmitted through screw-gear L^2 to operate shaft I^2 through worm-screw K^2 , this being a reversal of the usual method of transmitting motion by means of similar mechanism. Projecting from a bushing a^6 , positioned upon shaft I^2 and adapted to rotate therewith, is a pin r^5 , the function of which will be presently described.

Pivotally mounted upon stud b^4 , extending over bracket H^2 , is a substantially S-shaped rocker-lever T^4 , having intermediate its ends a pin c^4 , adapted to enter a slightly-inclined depression d^4 in drum D' , and a spring e^6 op-

erates to constantly urge said rocker-lever toward drum D' . Rocker-lever T^4 is provided at the lower end thereof with a pin u^5 , which when pin c^4 is located in depression d^4 of drum D' is adapted to engage with pin r^5 , carried by bushing a^6 of shaft I^2 , and normally to prevent the rotation of shaft I^2 , thereby acting as a stop for the entire train of gears adapted to be operated by mainspring F^7 .

Positioned upon shaft l is a disk b^6 , having a recess c^6 to accommodate a pin d^6 , extending from rocker-lever T^4 , as clearly shown in Fig. 8. The upper end of rocker-lever T^4 normally rests upon a beam R^3 , pivotally mounted upon a bracket R^4 , carried by standard M^2 , which beam normally rests upon a cam M^4 , carried by drum D' .

Loosely journaled upon arbor D^3 is a segmental cam S^3 , clearly shown in Fig. 6, which is adapted to be engaged and compelled to rotate with arbor D^3 during a portion of its rotation by a spur-screw w^5 , carried by disk w^4 , fixedly secured to arbor D^3 . Ratchet-wheel F^3 , fixedly secured to arbor D^3 , is engaged by pawl p^3 , pivoted to screw p^4 upon standard G^2 , and to arbor D^3 there is secured exteriorly of standard G^2 an operative crank-handle E^3 . Disk w^4 is provided with a cut-away portion n^7 to provide a shoulder n^8 , the purpose of which is to prohibit a rotation of arbor d^3 when the mechanism is in operation, inasmuch as shoulder n^8 will be engaged by beam R^3 , which during the operation is in its lowermost position.

In order that the speed of the motor may be balanced and controlled, I have provided a governor designed to accomplish this desired end and yet of such construction that during the sudden starting or stopping of the operating parts the momentum acquired will not operate to shock or jar the coacting parts. Journaled upon shaft I^2 are blocks v^2 and w^2 , flexibly connected with each other by means of toggle-arms m^2 , carrying weights m^3 at their points of pivotal connection P^2 , said blocks being urged in opposite directions by a coiled spring encircling shaft I^2 . Block v^2 is provided with a friction-disk q^2 , which is adapted to be engaged by a coacting friction-disk p^2 upon bushing a^6 , carried by shaft I^2 , and secured to block w^2 is a friction-disk r^2 , adapted during the operation of the governor to engage with a friction-piece s , of hard fiber or other suitable material, carried by an adjustable friction member t^2 . Adjustable friction member t^2 may be adjusted with respect to friction-disk r^2 by means of a clamping-screw b^7 , engaging with bracket H^2 , operating in an elongated slot a^2 , as clearly shown in Fig. 8. It will therefore be seen that the governor, the speed of which is at a very high velocity as compared with that of drum D' , will operate to control and act as a balance for the motor, and the provision of the friction-clutch comprised by coacting friction,

disks q^2 and p^2 between the train of gearing and said governor prevents the acquired momentum of said governor from jarring or pounding of the motor mechanism by reason of the sudden stoppage thereof.

A casing C^7 is provided over the drawing-rollers and the take-up roller, the primary object of which is to protect the body of the user of the closet from coming into contact with the used strips of the protective covering R . This casing, which also serves to prevent the entry of dust or dirt into the mechanism, gives a finished appearance to the device. A casing C^8 is also provided for the operating-motor:

Secured underneath base-board B is a spring L , engaging the under surface of closet-seat D , the purpose of which is to cushion the descent thereof when the same is returned from an upward position to its normal position. If desired, spring L may be made of sufficient strength to maintain closet-seat D normally in a raised position, allowing free use thereof as a urinal or as a receptacle for slops, &c.

Having thus described my invention, its operation, which should be largely obvious from the above description, is substantially as follows: In order that the operating-motor may have sufficient latent energy stored therein to perform its several functions, it is essential that spring F' be initially tensioned by several turnings of operating-handle E^3 , pawl p^3 operating to prevent a retrograde movement of arbor D^3 . Having properly positioned the mechanism upon a closet-seat, as described, a roll F of antiseptic covering R , prepared and apertured according to the described method, is inserted in casing A^4 . Friction-plates E' E' having been withdrawn from roller P , the rollers O and P having been separated in the manner hereinbefore described, covering R is drawn over closet-seat D , carried over roller P , under roller O , as clearly shown in Fig. 10, and the end thereof securely clamped between the hinged members b^7 and b^8 of spindle f of take-up roller Q . Take-up roller Q is then inserted between standards M and M^2 with the apertured end thereof encircling short shaft V and pin p of said shaft occupying the transverse slot c^{11} . At this point it may be noted that preliminary to separating drawing-rollers O and P sleeve t of knife T is forced against spring b^{11} until screw a^7 enters the transverse recess of bayonet-slot b^{12} , thereby insuring against injury to the cutting edges k and s when said rollers are caused to engage sanitary covering R . It may also be noted that prior to clamping sanitary covering R between drawing-rollers O and P covering R is so positioned upon closet-seat D that one of the apertures S will exactly register with the corresponding opening in said closet-seat, such position being determined by means of the guiding-lines B upon said covering. Having performed

the operations next above described, the device is ready for use. A revolution of arbor D^3 by means of handle E^3 will cause spur-screw w^5 to engage with cam S^3 , causing the same to lift beam R^3 , which in turn raises the end of rocker-lever T^4 . Rocker-lever T^4 being raised disengages stop-pin w^5 from pin r^5 , thereby freeing the motor mechanism. Upon the raising of rocker-lever T^4 pin c^4 has been raised upon the inclined surface of depression d^4 of drum D' , and upon pin d^6 being withdrawn from slot c^6 of disk b^6 the riding of pin d^6 upon the periphery of disk b^6 prevents rocker-lever T^4 from again approaching drum D' until depression d^4 by reason of the rotation of said drum has been carried out of registry with pin c^4 . This is accomplished during one revolution of disk b^6 , and when pin c^4 is riding on the periphery of drum D' pin d^6 is free from said disk. Upon the completion of one revolution of drum D' the pin c^4 again enters depression d^4 and causes pin w^5 to intercept pin r^5 , thereby stopping the operative mechanism. It will be noted that cam m^4 will allow pivoted beam R^3 to swing downwardly upon the starting of the rotation of drum D' , thereby preventing its interference with the operation of rocker-lever T^4 ; but upon the completion of one revolution of said drum cam m^4 again raises beam R^3 to initial position. During the operation of the motor the rollers O and P , being connected as described, will draw a sufficient length of the sanitary covering R across closet-seat D to bring into registry with aperture E of said closet-seat a succeeding aperture in said sanitary covering, and inasmuch as the amount of revolution of the drawing-rollers O and P is absolutely determined by the motor said opening will necessarily be in absolute registry with the corresponding opening in said closet-seat. The sanitary waterproofed covering R by reason of being paraffined or oiled serves to maintain the parts, particularly the cutting-knives, which are constantly in contact therewith, free from rust and in a measure serves as a lubricant therefor. Cam S^3 being loosely mounted upon arbor D^3 will, after performing its part of the starting operation, swing by gravity to its lowermost position. It will be apparent that a revolution of arbor D^3 by means of handle E^3 will operate to set in motion the operative mechanism of the motor and also will operate to tension spring F' , thereby always maintaining in storage a requisite amount of energy. It is obvious that as the take-up roller Q increases in size, due to the increased windings of covering R thereon, the surface velocity thereof would tend to increase. The delivery of the covering R being, however, maintained at a constant velocity, it is essential that the speed of a revolution of said take-up roller be gradually decreased. This has been accomplished in the

construction described by the slipping of belt N' upon pulley M'.

While I have provided a spring-operated motor for driving the drawing-rollers and the
5 rewinding-roller, it is obvious that any suitable mechanism—as, for instance, an electric motor—may be advantageously used in this relation or that manually-operated means may be employed without departing from
10 the scope of my invention, it being only essential that the movement of covering R across closet-seat D be positive and also that it be accurately determined, whereby the openings therein will register with the open-
15 ing in the closet-seat. It should be apparent also that while the governor employed in the relation described is well adapted to accomplish the functions for which it is intended other governing means—as, for instance, a
20 fan—may be substituted without affecting a departure from the spirit of my invention. It will therefore be seen that I have provided a mechanism well adapted to attain the ob-
25 jects of my invention and one which is also characterized by accuracy of operation, the several parts operating as described to accomplish the several advantageous results above enumerated.

In order to provide against ambiguity in
30 this specification and in the claims, I wish it to be distinctly understood that by the terms "intermittent" or "intermittently" as used to describe the movement of the covering over the closet-bowl is meant a movement
35 characterized by alternate starts and pauses or rests, as when a used portion of the anti-septic material is drawn from the seat of the bowl to expose a fresh portion thereon, at which time the portion of the drawing means
40 is stopped, thereby allowing the fresh portion to rest over said seat.

As many changes could be made in the above constructions and many apparently
45 widely different embodiments of my invention could be made without departing from the scope thereof, I intend that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting
50 sense. I desire it also to be understood that the language used in the following claims is intended to cover all of the generic and specific features of the invention herein described and all statements of the scope of the inven-
55 tion which, as a matter of language, might be said to fall therebetween.

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

60 1. The combination with a closet-bowl, of means fixed upon the closet-bowl for drawing a sheet of flexible material over the seat portion thereof, with an intermittent motion whereby successive portions of said sheet
to rest over said seat portion,

and a support for the portion of flexible material thus brought to rest, said support and the flexible material thereon being movable in a direction which will not disturb the connection of the sheet with said drawing means. 70

2. The combination with a closet-bowl, of means fixed upon the closet-bowl for drawing an apertured sheet of flexible material over the seat portion thereof with successive motions between which are pauses whereby
75 successive apertures in said sheet may be brought to rest in registry with the opening in said seat portion, and a support for the portion of flexible material thus brought to rest, said support and the flexible material
80 thereon being movable in a direction which will not disturb the connection of the sheet with said drawing means.

3. The combination with a closet-bowl, of means fixed upon the closet-bowl for drawing a sheet of flexible material thereover with
85 an intermittent motion whereby successive portions of said sheet may be brought to rest over said bowl, and a seat interposed between the bowl and the flexible material, said seat
90 and the material thereon being movable in a direction which will not disturb the connection of said sheet with said drawing means.

4. The combination with a closet-bowl, of means fixed upon the closet-bowl for drawing a sheet of flexible material across the seat
95 portion thereof with an intermittent motion whereby successive portions of said sheet may be brought to rest over said seat portion, and a support interposed between the bowl and
100 the material capable of being lifted to carry the flexible material from the bowl in a direction which will not disturb the connection of the sheet with said drawing means.

5. The combination with a closet-bowl provided with a fixed support, of means on the
105 fixed support for drawing a sheet of flexible material across the bowl with successive motions separated by pauses whereby successive portions of said sheet may be brought to rest
110 over said seat portion, and a movable support for the portion of flexible material thus brought to rest, said movable support being adapted when moved to carry the flexible material from the bowl in a direction which
115 will not disturb the connection of the sheet with said drawing means.

6. The combination of a closet-bowl provided with a fixed support, means on the
120 fixed support for drawing an apertured sheet of flexible material across said bowl with an intermittent motion whereby successive portions of said sheet may be brought to rest over said bowl, and a tiltable seat interposed
125 between the bowl and the flexible material, adapted when tilted to carry the flexible material from the bowl in a direction which will not disturb the connection of said sheet with said drawing means.

7. The herein-described sanitary device 130

comprising in combination, a closet-bowl having a seat portion carrying a supply of flexible material, and means fixed upon the closet-bowl for drawing successive portions of said flexible material over said seat portion with an intermittent motion whereby said successive portions of material may be brought to rest over the seat portion of the closet-bowl, said seat portion and the supply of flexible material thereon being movable in a direction which will not disturb the connection of the material with said drawing means.

8. In combination, a closet comprising a bowl, a fixed base-board and a tiltable seat, and means on the base-board for drawing a sheet of flexible material over the seat with successive motions between which are pauses whereby successive portions of said sheet may be brought to rest over said seat, said seat when tilted being adapted to move said flexible material in a direction which will not disturb the connection of said sheet with the drawing means.

9. The combination with a closet-bowl, of means fixed upon the closet-bowl for drawing a sheet of flexible material over the seat portion thereof with an intermittent motion whereby successive portions of given length of said sheet may be brought to rest over said seat portion, and a support for the portion of flexible material thus brought to rest, said support and the flexible material thereon being movable in a direction which will not disturb the connection of the sheet with the drawing means.

10. The combination with a closet-bowl, of means fixed thereon for drawing given portions of an apertured sheet of flexible material over the seat portion thereof with successive motions whereby the apertures in successive portions of said sheet may be brought to rest in registry with the opening in the seat portion of said bowl, and a support for the portion of flexible material thus brought to rest, said support and the flexible material thereon being movable in a direction which will not disturb the connection of said sheet with said drawing means.

11. In combination with a closet-bowl having a hinged seat, of means fixedly mounted upon the closet-bowl for drawing a sheet of flexible material over said hinged seat with an intermittent motion whereby successive portions of said sheet may be brought to rest over said seat, said seat and the flexible material thereon being movable in a direction which will not disturb the connection of said sheet with the drawing means.

12. The combination with a closet-bowl provided with a swingable seat, of means supported immovably upon the closet-bowl for drawing a sheet of flexible material over said seat with an intermittent motion whereby successive portions of said sheet may be brought to rest over said seat, said seat when

swung being adapted to carry the flexible material thereon in a direction which will not disturb the connection of the sheet with said drawing means.

13. The combination with a closet-bowl having a hinged seat, of means immovably supported upon the closet-bowl for drawing given portions of apertured flexible material over said seat with an intermittent motion whereby successive portions of said material may be brought to rest over said seat, said seat and the flexible material thereon being movable in a direction which will not disturb the connection of the sheet with said drawing means.

14. In a device of the class described, the combination of a closet having a fixed portion and a movable portion, and mechanism operative upon the fixed and movable portions for drawing a sheet of flexible material over the movable portion with an intermittent motion whereby successive portions of said sheet may be brought to rest over said movable portion, said movable portion when moved being adapted to carry the flexible material thereon in a direction which will not disturb the connection of said sheet with the drawing mechanism.

15. The combination with a closet-bowl, of means fixed upon the closet-bowl for automatically drawing a sheet of flexible material over the seat portion thereof with an intermittent motion whereby successive portions of said sheet may be brought to rest over said seat portion, and a support for the portion of flexible material thus brought to rest, said support and the flexible material thereon being movable in a direction which will not disturb the connection of the sheet with said drawing means.

16. The combination with a closet-bowl, of means fixed upon the closet-bowl for automatically drawing an apertured sheet of flexible material over the seat portion thereof with successive motions between which are pauses whereby successive apertures of said sheet may be brought to rest in registry with an opening in said seat portion, and a support for the portion of flexible material thus brought to rest, said support and the flexible material thereon being movable in a direction which will not disturb the connection of the sheet with said drawing means.

17. The combination with a closet-bowl, of means fixed upon the closet-bowl for automatically drawing given portions of a sheet of flexible material over the seat portion thereof with an intermittent motion whereby successive portions of said sheet may be brought to rest over said seat portion, and a support for the portion of flexible material thus brought to rest, said support and the flexible material thereon being movable in a direction which will not disturb the connection of the sheet with said drawing means.

18. The combination with a closet-bowl provided with a tiltable seat, of means fixed upon the closet-bowl for automatically drawing given portions of equal length of a sheet of flexible material over the seat with an intermittent motion whereby successive portions of said sheet may be brought to rest over said seat, said seat when tilted being adapted to carry the flexible material thereon from the bowl in a direction which will not disturb the connection of the sheet with said drawing means.

19. The combination with a closet-bowl, of a hinged seat adapted when swung to expose the bowl, of means immovably supported upon the closet-bowl for automatically drawing a sheet of flexible material over said seat with an intermittent motion whereby successive portions of said sheet may be brought to rest over said seat, said seat when lifted being adapted to carry the flexible material thereon in a direction which will not disturb the connection of the sheet with said drawing means.

20. The combination with a closet-bowl provided with a movable support for a roll of flexible material, and means upon a fixed portion of the closet-bowl for unwinding a strip of flexible material from said roll and drawing the same over the seat portion of the closet-bowl with an intermittent motion whereby successive portions of said strip may be brought to rest over said seat portion, said support when moved being adapted to carry the roll of flexible material and a portion of the strip thereof resting upon the seat portion of the closet-bowl in a direction which will not disturb the connection of the said strip with the drawing means.

21. The combination with a closet-bowl, of a tiltable seat supporting a roll of flexible material, means fixed upon the closet-bowl for unwinding a strip of flexible material from said roll and drawing the same over said seat with an intermittent motion whereby successive portions of said strip may be brought to rest over said seat portion, said seat when tilted being adapted to carry the roll of flexible material and the portion of the strip thereon resting upon the seat in a direction which will not disturb the connection of said strip with the drawing means.

22. In a device of the class described in combination, a closet-bowl, a seat hinged thereto, said seat forming a support for a roll of flexible material, and means fixed upon the closet-bowl for unwinding a strip of flexible material from said roll and drawing given portions thereof over said seat with successive motions separated by pauses whereby successive portions of said strip may be brought to rest upon said seat, said seat when swung upon its hinges being adapted to carry the roll of flexible material and the portion of the strip thereof resting upon the seat

in a direction which will not disturb the connection of the strip with the drawing means.

23. The combination with a closet-bowl having a support underneath which a roll of flexible material is supported, of a roller upon a fixed portion of the bowl adapted to draw successive portions of said material from said roll over the seat portion of the closet-bowl with an intermittent motion whereby successive portions of said material may be brought to rest over said seat portion, said roll of flexible material and said drawing-roller being disposed in parallel relation, said support and the roll of flexible material being movable in a direction which will not disturb the connection of the material with said drawing-roller.

24. The combination with a closet-bowl having a support underneath which a roll of flexible material is supported, of a roller upon a fixed portion of the bowl adapted to draw successive portions of a strip of material from said roll over the seat portion of the closet-bowl with successive motions between which are pauses whereby successive portions of said strip may be brought to rest over said seat portion, said roll of flexible material and said drawing-roller being disposed in parallel relation, said support and the roll of flexible material being movable in a direction such that the parallel relation between said roll of flexible material and the drawing-roller is maintained.

25. The combination with a closet-bowl having a support underneath which a roll of flexible material is supported, a roller upon the fixed portion of the bowl adapted to draw successive portions of said material over said seat portion with an intermittent motion whereby successive portions of said material may be brought to rest over said seat said support being movable to carry the roll of flexible material and the part thereof resting upon the seat portion in a direction which will not disturb the connection of said material with the drawing-roller, and mechanism adapted automatically to operate said drawing-roller.

26. The combination with a closet-bowl, of a hinged seat underneath which a roll of flexible material is rotatively mounted, a roller upon the fixed portion of the bowl adapted to draw given portions of material from said roll over the hinged seat with successive motions between which are pauses whereby successive portions of said material may be brought to rest over said seat, said seat when swung upon its hinges being adapted to carry said roll of flexible material and the material resting upon the seat in a direction which will not disturb the connection of said material with the drawing-roller, and mechanism adapted automatically to operate said drawing-roller.

27. In combination with a closet-bowl, of

a tiltable seat supporting underneath its front edge a roll of flexible material, a roller mounted for rotation upon a fixed portion of the closet-bowl adapted to draw successive portions of said material from said roller over the seat with successive motions between which are pauses whereby the successive portions of said material may be brought to rest over said seat, said seat when tilted being adapted to carry said roll of flexible material and the part thereof resting upon the seat in a direction which will not disturb the connection of said material with the drawing-roller, and mechanism adapted automatically to operate said drawing-roller.

28. In combination, a closet-bowl, and means for drawing a sheet of flexible material across the same, said means also serving to mutilate the material so that it cannot again be used.

29. In combination, a closet-bowl, and means for drawing a sheet of flexible material across the bowl, and a device carried by the drawing means, adapted to mutilate the flexible material so that it cannot again be used.

30. In combination, a closet-bowl, a roller adapted to draw a sheet of flexible material over the seat portion thereof, and a knife carried by the roller adapted to mutilate said material so that it cannot again be used.

31. In combination, a closet-bowl, a roller adapted to draw a sheet of flexible material over the seat portion thereof, and a spring-pressed knife carried by the roller.

32. In combination, a closet-bowl, a pair of rollers adapted to draw a sheet of flexible material over the seat portion thereof, each of said rollers being provided with a knife, said knives coacting to mutilate the flexible material so that it cannot again be used.

33. In combination, a closet-bowl, a pair of rollers adapted to draw a sheet of flexible material over the seat portion thereof, a knife carried by each of said rollers, said knives coacting to mutilate the flexible material so that it cannot again be used, and means adapted automatically to operate said rollers.

34. In combination, a closet provided with means for drawing successive portions of a sheet of flexible material over the seat portion thereof, and means arranged and adapted to be operated by pressure of the body of the occupant of said closet for preventing the slipping of said flexible material.

35. In combination, a closet-bowl having a supply of flexible material carried underneath the seat portion thereof, successive portions of which are adapted to be drawn across the same, and means arranged and adapted to be operated by means of the body of the user for preventing a movement of the flexible material when the seat is occupied.

36. In combination, a closet-bowl having

a supply of flexible material carried underneath the seat portion thereof, successive portions of which are adapted to be drawn across the same, and means arranged and adapted to be operated by the body of the occupant of the seat and to prevent the feeding of material from said supply of flexible material when the closet is in use.

37. In combination, a closet-bowl having a supply of flexible material carried underneath the seat portion thereof, means for drawing successive portions of said material over said seat portion, and means arranged and adapted to be operated by the body of the occupant of the seat and acting directly on the supply of flexible material to prevent the feeding of material therefrom when the closet is in use.

38. In combination, a closet-bowl provided with a fixed portion and a movable seat portion, means for supplying a strip of flexible material, means for drawing successive portions of said strip over the seat portion with an intermittent motion whereby successive portions of said material are brought to rest over said seat portion, one of the above-mentioned means being mounted upon the fixed portion of the closet-bowl and the other thereof upon the movable seat portion, said seat portion when moved being adapted to carry the strip of material from the bowl in a direction which will not disturb the connection of the same between the supplying means and the drawing means.

39. In combination, a closet-bowl provided with a fixed portion and a hinged seat, means for supplying a strip of flexible material, means for automatically drawing successive portions thereof over the hinged seat with an intermittent motion whereby successive portions of said material are brought to rest over said hinged seat, one of the above-mentioned means being mounted upon the fixed portion of the closet-bowl and the other thereof upon the hinged seat, said hinged seat when lifted being adapted to carry the material thereon from the bowl in a direction which will not disturb the connection of the sheet between the supplying means and the drawing means.

40. In a device of the class described, in combination, a closet-bowl, a seat hinged thereto, means adapted to draw a flexible sheet of material over said seat, said flexible material having openings therein corresponding to that in said seat, and means adapted to mutilate said flexible material when the same has been drawn across said seat.

41. In a device of the class described, in combination, a closet-bowl, a base-board secured thereto and resting thereon, a seat hinged to said base-board adapted to rest upon said closet-bowl, a supply of flexible, waterproofed material supported underneath said closet-seat, said flexible, waterproofed

material being provided with a series of equally-spaced openings corresponding in dimensions to that in said closet-seat, means for drawing successive portions of said flexible, waterproofed material across said closet-seat, and means carried by said drawing means for mutilating said flexible, waterproofed material.

42. In a device of the class described, in combination, a closet-bowl, a base-board secured thereto and adapted to rest thereon, a seat hinged to said base-board and also adapted to rest upon said closet-bowl, a roll of flexible, waterproofed material rotatably supported underneath said seat, rollers adapted to draw successive portions of said flexible, waterproofed material across said seat, said material being provided with a plurality of openings corresponding in dimensions to that in said seat, and means carried by said drawing-rollers adapted to mutilate said flexible, waterproofed material.

43. In a device of the class described, in combination, a closet-bowl, a base-board secured thereto and adapted to rest thereon, a seat hinged to said base-board and also adapted to rest upon said closet-bowl, a roll of flexible, waterproofed material, said material being provided with a series of equally-spaced openings corresponding in dimensions to the opening in said seat, rollers for drawing successive, given portions of said flexible, waterproofed material across said seat such that each of the openings in said flexible, waterproofed material are successively brought into registry with the opening in said closet-seat, means carried by said drawing-rollers for mutilating said flexible, waterproofed material, and a rewinding-roller for receiving said aforementioned material after the same has been mutilated.

44. In a device of the class described, in combination, a closet-bowl, a base-board secured thereto and adapted to rest thereon, a closet-seat hinged to said base-board and adapted to rest on said closet-bowl, a roll of protective covering rotatably supported underneath said closet-seat, said protective covering being provided with a series of equally-spaced openings corresponding in dimensions to the opening in said closet-seat, rollers adapted to draw successive, given portions of said protective covering over said closet-seat such that each of said openings will be in perfect registry with the opening in said closet-seat as said protective covering is drawn across the same, knives carried by said drawing-rollers adapted to mutilate said protective covering, and a rewinding-roller adapted to receive said protective covering when the same has been delivered in a mutilated condition from said drawing-rollers, said rewinding-roller being so connected and arranged with respect to its driving means as to gradually decrease in angular velocity in

proportion to its peripheral increase due to the increased number of layers of said protective covering received thereon.

45. In a device of the class described, in combination, a closet-bowl, a seat flexibly connected therewith, a roll of flexible, antiseptic covering rotatably positioned thereon, said covering being impregnated with paraffin or other waterproofing material and being also provided with a plurality of equally-spaced openings corresponding in dimensions to the opening in said closet-seat, means for drawing said flexible, antiseptic covering across said closet-seat, an antifriction-roller adapted to guide said flexible covering over the edge of said closet-seat, a friction-plate adapted to operate upon said roll, and means engaging said friction-plate adapted to be put into operation by the body of the user of said closet-seat for preventing a rotation of said roll of flexible, antiseptic covering.

46. In a device of the class described, in combination, a closet-bowl, a seat arranged thereon, a roll of flexible material journaled underneath said closet-seat, said flexible material being provided with a plurality of openings corresponding in dimensions to that in said closet-seat, means for drawing said flexible material across said closet-seat, and means acting directly upon said roll adapted to be operated to prevent a rotation thereof, said means being adapted to be put into operation by the body of the user of said closet-seat.

47. In a device of the class described, in combination, a closet-bowl, a seat arranged thereon, a roll of flexible material journaled underneath said closet-seat, said flexible material being provided with a plurality of spaced openings, each of said openings being shaped similarly to the opening in said closet-seat, means for drawing said flexible material across said closet-seat, and means extending from said closet-seat and engaging said roll adapted to be operated to prevent a rotation thereof by pressure exerted thereon by the occupant of said closet-seat.

48. In a device of the class described, in combination, a closet-bowl, a seat flexibly connected therewith, a roll of flexible material journaled underneath said closet-seat, said flexible material being provided with a plurality of spaced openings corresponding in dimensions to that of said closet-seat, means adapted to draw said flexible material across said closet-seat, means resting upon said flexible material adapted to take up any slack therein, a friction-plate resting upon said roll and adapted to impose a gradually-reduced pressure upon said roll during the unwinding thereof, and means extending through said seat and acting on said friction-plate adapted to cause the same to prevent a rotation of said roll, said means being operated by the occupant of said closet-seat.

49. In a closet provided with a seat having means beneath its front edge for holding a roll of paper, a base-board to which it is directly hinged at its rear in combination with
 5 spring-driven mechanism for feeding the paper from front to rear over the seat, an operating-handle for placing the spring under tension, and means for permitting the spring-compelled mechanism to feed paper forward
 10 only after it has been wound to a predetermined amount.

50. In a device of the class described, mechanism for successively placing a supply of paper over a closet-seat consisting of feed-
 15 ing-rolls operatively connected to spring-driven gear-wheels in combination with an operating-handle for placing the spring under tension together with means for preventing the operation of the spring until the op-
 20 erating-handle has been rotated through its complete cycle, the arrangement being such that each operation of the handle causes the spring to feed a definite amount of paper over the seat.

25 51. In a closet, a supply of protective covering having openings or holes at intervals corresponding to the hole in the seat, means for automatically feeding the paper forward by successive steps, means for rewinding it
 30 after it has been used, and additional means for mutilating it so that it cannot again be used.

52. In a closet, power-driven mechanism for feeding forward a supply of paper over
 35 the seat consisting of drawing-rolls interconnected with gear-wheels, and a driving-spring, in combination with an operating-handle having means for placing the spring under tension together with additional
 40 means for preventing the handle from returning to normal position until it is moved through its complete cycle.

53. In a device of the class described, in combination, a closet-bowl adapted to sup-
 45 port a closet-seat, a roll of protective covering journaled underneath said closet-seat, said protective covering having therein a plurality of spaced openings corresponding in dimensions to the opening in said closet-seat, a pair
 50 of rollers adapted to draw successive portions of said protective covering over said closet-seat, the successive portions of said covering being of equal length, a spring-controlled motor positively connected with said draw-
 55 ing-rollers and adapted to drive the same, a rewinding-roller for taking up said protective covering as the same is delivered from said drawing-rollers, means for driving said
 60 rewinding-roller from one of said drawing-rollers, said means being adapted to allow said rewinding-roller to rotate with a varying angular velocity, the amount of variance depending upon the quantity of protective
 65 covering wound thereon, and means adapted to be put into operation by the driving

means for said drawing-rollers to determine the amount of protective covering drawn over said closet-seat.

54. In a device of the class described, in combination, a closet-bowl, a seat arranged
 70 thereon, a supply of protective covering carried by said closet-seat, said protective covering being provided with a plurality of openings corresponding in dimensions to that in said closet-seat, a pair of rollers adapted
 75 to receive therebetween said protective covering, said rollers being adapted to draw successive portions of said protective covering across said closet-seat, knives carried by
 80 said rollers adapted to mutilate said protective covering and a rewinding-roller adapted to receive said protective covering as the same is delivered from said drawing-rollers.

55. In a device of the class described, in combination, a closet-bowl, a seat arranged
 85 thereon, a quantity of protective covering arranged underneath said closet-seat and carried thereby, said protective covering being provided with a plurality of openings of similar form and size to that in said closet-seat, a
 90 pair of drawing-rollers adapted to receive therebetween said protective covering and to draw a definite quantity thereof by a step-by-step movement across said closet-seat, each
 95 successive movement of said rollers operating to bring into exact registry with the opening in said closet-seat one of the openings in said protective covering, a knife carried by each of said supporting-rollers adapt-
 100 ed to mutilate said protective covering, and a rewinding roller adapted to receive said protective covering as the same is delivered from said drawing-rollers.

56. In a device of the class described, in combination, a closet-bowl, a seat arranged
 105 thereon, a quantity of protective covering carried by said closet-seat, said protective covering being provided with a plurality of equally-spaced openings of similar form and size to that in said closet-seat, a pair of roll-
 110 ers adapted to receive therebetween and to draw across said closet-seat by a step-by-step movement successive portions of said protective covering, a knife carried by each of said drawing-rollers and adapted to mutilate
 115 said protective covering during the operation thereon by said drawing-rollers, and a rewinding-roller comprised by end flanges and a split spindle between the split portions of which said protective covering is adapted
 120 to be clamped, said rewinding-roller being adapted to receive said protective covering as the same is delivered from said drawing-rollers.

57. In a device of the class described, in
 125 combination, a closet-bowl, a seat arranged thereon, a quantity of protective covering carried by said closet-seat, said protective covering being provided with a plurality of openings of similar size and form to the opening in
 130

said closet-seat, a pair of rollers adapted to draw successive portions of said protective covering across said closet-seat, a knife rigidly secured to one of said drawing-rollers, a
 5 coacting knife slidably mounted upon the other of said rollers and adapted to rotate therewith, a spring for holding said knives in contact with each other, said knives during the operation of said drawing-rollers being
 10 adapted to mutilate said protective covering, and a rewinding-roller adapted to receive the used portions of said protective covering as the same is delivered from said drawing-rollers.

15 58. In a device of the class described, in combination, a closet-bowl, a seat arranged thereon, a supply of protective covering stored underneath said closet-seat and adapted to be supported thereby, said protective
 20 covering being provided with a plurality of equally-spaced openings corresponding in dimensions to the opening in said closet-seat, a pair of rollers adapted to draw successive portions of said protective covering across
 25 said closet-seat, pins on one of said rollers adapted to be received into concentric grooves in the other of said rollers, said rollers being adapted to receive said protective covering therebetween, said rollers being adjust-
 30 able toward or from each other, springs for holding said rollers yielding in engagement with said protective covering, friction-plates for maintaining said protective covering in engagement with one of said rollers, and a
 35 rewinding-roller adapted to take up said protective covering as the same is delivered from said drawing-rollers.

59. In combination, a closet, means positioned thereon for drawing across the seat
 40 thereof successive portions of protective covering having a plurality of openings therein corresponding in dimensions to the opening in said closet-seat, means for mutilating said strip after the same has been used, and means
 45 adapted to arrest automatically the movement of said strip of protective covering when each of said openings in said covering is in registry with the opening in said closet-seat.

50 60. In combination, a closet provided with a base-board having a seat hinged thereto, mechanism supported by said base-board adapted to draw across said seat a strip of protective covering, said protective covering
 55 having therein a plurality of equally-spaced openings corresponding in dimensions to the opening in said closet-seat, means for mutilating said protective covering after the same has been used, and spring-controlled means
 60 for operating said drawing mechanism and for determining the amount of said protective covering to be drawn across said closet-seat in a single operation of said drawing mechanism.

65 61. In combination, a closet provided with

a base-board having a seat hinged thereto, mechanism supported by said base-board adapted to draw across said seat a strip of protective covering, said protective covering
 70 having therein a plurality of equally-spaced openings corresponding in dimensions to the opening in said closet-seat, means for mutilating said protective covering after the same has been used a motor adapted to drive said
 75 drawing mechanism to cause the same to draw a definite amount of said protective covering over said closet-seat during one of the operations thereof, and a governor for balancing and controlling the operation of
 80 said motor.

62. In combination, a closet provided with a base-board having a seat hinged thereto, mechanism supported by said base-board adapted to draw across said seat a strip of protective covering, said covering having
 85 therein a plurality of equally-spaced openings corresponding in dimensions to the opening in said closet-seat, means for mutilating said protective covering after the same has been used, a motor adapted to drive said
 90 drawing mechanism to cause the same to draw a definite amount of said protective covering over said closet-seat during one of the operations thereof, a governor for balancing and controlling the operation of said
 95 motor, and a friction-clutch interposed between said motor and said governor.

63. In a device of the class described, in combination, a closet-bowl, a base-board secured thereto, a seat hinged to said base-
 100 board, a roll of protective covering rotatably mounted underneath said closet, said protective covering being provided with a plurality of equally-spaced openings corresponding in
 105 dimensions to the opening in said closet-seat, a pair of rollers adapted to draw said protective covering across said closet-seat in a step-by-step movement, a drum, a spring adapted to rotate the same, a train of gears
 110 extending between said drum and said drawing-rollers, a rewinding-roller to which said protective covering is adapted to be attached, a belt connecting one of said drawing-rollers with said rewinding-roller, a second
 115 train of gears extending from said drum, a governor frictionally connected with said second train of gears, means engaging said drum and also operating on said second-mentioned train of gears adapted normally to prevent a rotation of said drum, and means
 120 adapted by an operation upon said last-mentioned means to cause the same to release said second-mentioned train of gears, thereby allowing a rotation of said drum, said drum upon the completion of one revolution being
 125 adapted to cause said first-mentioned means to again operate upon said second-mentioned train of gears, thereby arresting the movement thereof.

64. In a device of the class described, in 130

combination, a closet comprised by a bowl having a stationary base-board and a movable seat, a roll of antiseptic material provided with a series of equally-spaced openings journaled underneath said seat, mechanism supported by said base-board for drawing successive equal portions of said material across said seat, a substantially closed housing for said antiseptic material, and a spring-controlled sealing-plate forming a part of said housing adapted to press against said material, resulting in a substantially sealed closure.

65. In a device of the class described, in combination, a closet comprised by a bowl having a stationary base-board and a movable seat, a roll of antiseptic material provided with a series of equally-spaced openings journaled underneath said seat, mechanism positioned upon said base-board for drawing successive portions of said material across said seat, an antifriction-roller journaled upon the edge of said seat and adapted to guide said material over said edge, a substantially closed housing surrounding said roll of material, and a spring-controlled sealing-plate forming a part of said housing adapted to press against said material to maintain the same in contact with said antifriction-roller, resulting in a substantially sealed closure for said material.

66. In a device of the class described in combination, a closet comprised by a bowl supporting a fixed base-board and a movable seat, a shaft removably mounted underneath said seat adapted to support a roll of flexible covering having a plurality of openings therein, a pair of rollers adapted to draw successive portions of said covering over said seat, a split rewinding-roller adapted to take up said covering as the same is delivered by said drawing-rollers, means carried by one of said drawing-rollers adapted to prevent the slipping of said covering, a drum, connections between said drum and said drawing-rollers, a loose belt connecting said drawing-rollers and said rewinding-roller, an arbor, a coiled spring connected at its outer end to said drum and at its inner end to said arbor, means adapted to rotate said arbor to tension said spring, means for releasing said drum whereby the same will rotate under the influence of said spring to drive said rollers, and means the operation of which is determined by the completion of one revolution of said drum adapted to lock the same against movement.

67. In a device of the class described, in combination, a closet comprised by a bowl supporting a fixed base-board and a movable seat, a roll of protective covering journaled underneath said seat, a pair of rollers adapted to take up said covering as the same is delivered from said drawing-rollers, a drum, a train of gears connecting said drum and said

drawing-rollers, an arbor, a coiled spring connected at its inner end to said arbor and at its outer end to said drum, a handle for rotating said arbor to tension said spring, a pawl and ratchet adapted to prevent a retrograde movement of said arbor, means normally adapted to prevent a rotation of said drum, a cam loosely mounted upon said arbor, a disk mounted upon said arbor having a cut-away portion to provide a shoulder, a cam upon said drum, a beam pivoted to a fixed part of the device and normally resting upon said drum, and means carried by said disk adapted to engage said movable cam to cause the same to raise said beam, thereby disengaging said first-mentioned means to allow a rotation of said drum, said beam by an engagement with said shoulder operating to prevent a continued rotation of said arbor during the rotation of said drum, said first-mentioned means upon the completion of one revolution of said drum being adapted to arrest the movement thereof.

68. In a device of the class described, in combination, a closet comprised by a bowl supporting a fixed base-board and a movable seat, a roll of protective covering journaled underneath said seat, a pair of rollers adapted to draw said covering across said seat, a rewinding-roller adapted to take up said covering as the same is delivered from said drawing-rollers, a drum, a train of gears connecting said drum and said drawing-rollers, an arbor, a coiled spring connected at its inner end to said arbor and at its outer end to said drum, a handle for rotating said arbor to tension said spring, a pawl and ratchet adapted to prevent a retrograde movement of said arbor, means normally adapted to prevent a rotation of said drum, a cam loosely mounted upon said arbor, a disk mounted upon said arbor having a cut-away portion to provide a shoulder, a cam upon said drum, a beam pivoted to a fixed part of the device and normally resting upon said drum, means carried by said disk adapted to engage said movable cam to cause the same to raise said beam, thereby disengaging said first-mentioned means to allow a rotation of said drum, said beam operating by an engagement with said shoulder to prevent a continued rotation of said arbor during the rotation of said drum, said first-mentioned means upon the completion of one revolution of said arbor being adapted to again arrest the movement thereof, a governor frictionally connected with said drum adapted to control the operation thereof, and an adjustable friction member adapted to control and limit the expansion of said governor.

69. In a device of the class described, in combination, a closet comprised by a bowl supporting a fixed base-board and a movable seat, a roll of protective covering journaled underneath said seat, a pair of rollers sup-

ported by said base-board adapted to receive therebetween and to draw successive portions of said protective covering across said seat, a rewinding-roller adapted to take up said covering as the same is delivered from said drawing-rollers, independent shafts for driving each of said drawing-rollers, a drum, a train of gears extending from said drum to said drawing-rollers, a loose belt connecting said drawing-rollers with said rewinding-roller, an arbor upon which said drum is journaled, a coiled spring the outer end of which is connected to said drum, the inner end being connected to said arbor, an operating-handle positioned upon said arbor, said arbor being adapted to be operated to tension said spring, a pawl and ratchet adapted to prevent a retrograde movement of said arbor, a second train of gears extending from said drum, a shaft provided with a friction-disk, a governor having a friction-disk coacting with said first-mentioned friction-disk, a pin on said last-mentioned shaft, a rocker-lever journaled at a fixed point and having a pin entering into an inclined depression in said drum, said rocker-lever having a pin at its opposite end adapted to engage with a pin on said shaft to prevent a rotation thereof, a cam positioned upon said drum, a beam pivoted to a fixed point and normally resting upon said cam, the upper end of said rocker-lever being supported by said beam, a loosely-mounted, segmental cam upon said arbor, a disk having a cut-away portion to provide a shoulder fixedly mounted upon said arbor, a screw projecting from said disk, said screw upon a rotation of said arbor by means of said handle being adapted to cause said loosely-mounted cam to raise said beam, thereby forcing said rocker-lever from said drum to disengage the pin at its lower end from the coacting pin on said shaft, thereby allowing a rotation of said drum, and means adapted to prevent said rocker-lever from approaching said drum until the inclined opening therein has passed from registry with the pin on the upper end of said rocker-lever.

70. The combination with a closet-bowl, a fixed support, of means upon said fixed support for drawing a sheet of flexible material over the seat portion of the closet-bowl with

an intermittent motion, whereby successive portions of said sheet may be brought to rest over said seat portion, and a support for the portion of flexible material thus brought to rest, said support and the flexible material thereon being movable in a direction which will not disturb the connection of the sheet with said drawing means.

71. The combination with a closet-bowl, of a fixed support, means upon said fixed support for drawing a sheet of flexible material over said closet-bowl with an intermittent motion, whereby successive portions of said sheet may be brought to rest over said bowl, and a seat interposed between the bowl and the flexible material, said seat and the material thereon being movable in a direction which will not disturb the connection of said sheet with said drawing means.

72. The combination of a closet-bowl, of a hinged seat adapted when swung to expose the bowl, a fixed support and means supported upon said fixed support for automatically drawing a sheet of flexible material over said seat with an intermittent motion, whereby successive portions of said sheet may be brought to rest over said seat, said seat when lifted being adapted to carry the flexible material thereon in a direction which will not disturb the connection of the sheet with said drawing means.

73. The combination with a closet-bowl, provided with a movable support for a roll of flexible material, a fixed support, and means upon said fixed support for unwinding a strip of flexible material from said roll and drawing the same over the seat portion of the closet-bowl with an intermittent motion, whereby successive portions of said strip may be brought to rest over said seat portion, said support when moved being adapted to carry the roll of flexible material and a portion of the strip thereof resting upon said seat portion of the closet-bowl in a direction which will not disturb the connection of said strip with said drawing means.

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

ALBERT F. LESLER.

Witnesses:

H. M. SEAMANS,

W. W. B. SEYMOUR.