

No. 732,788.

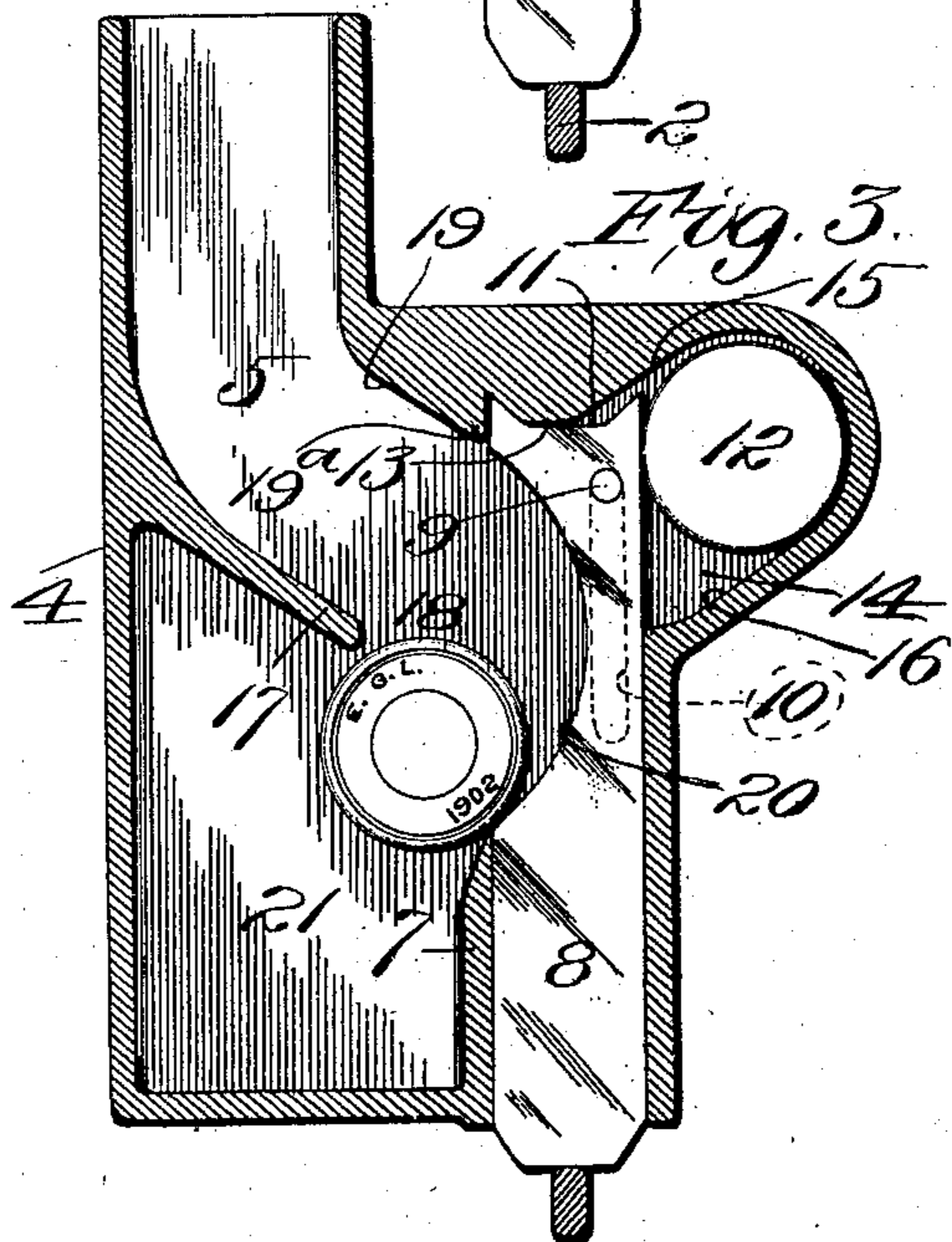
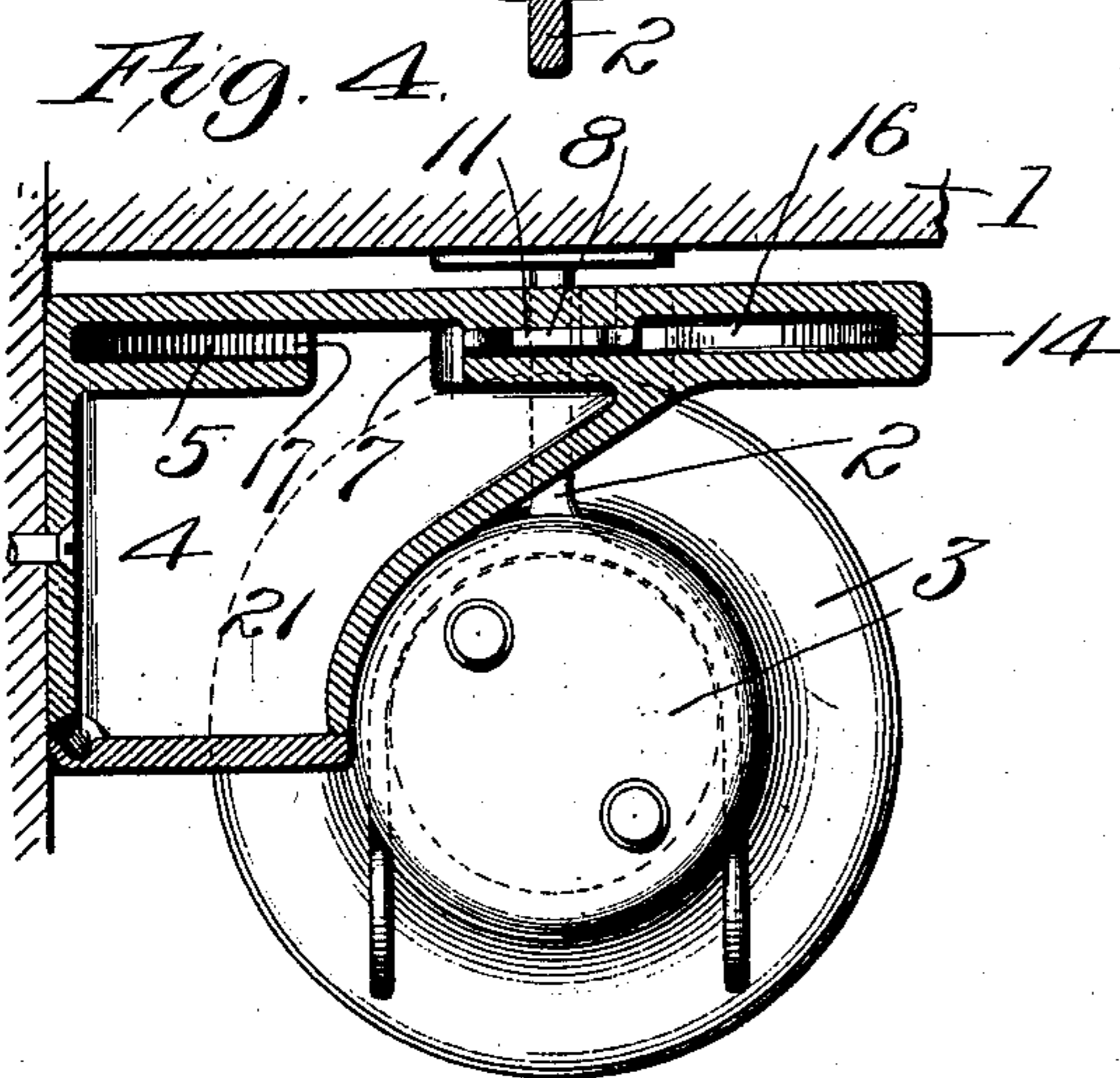
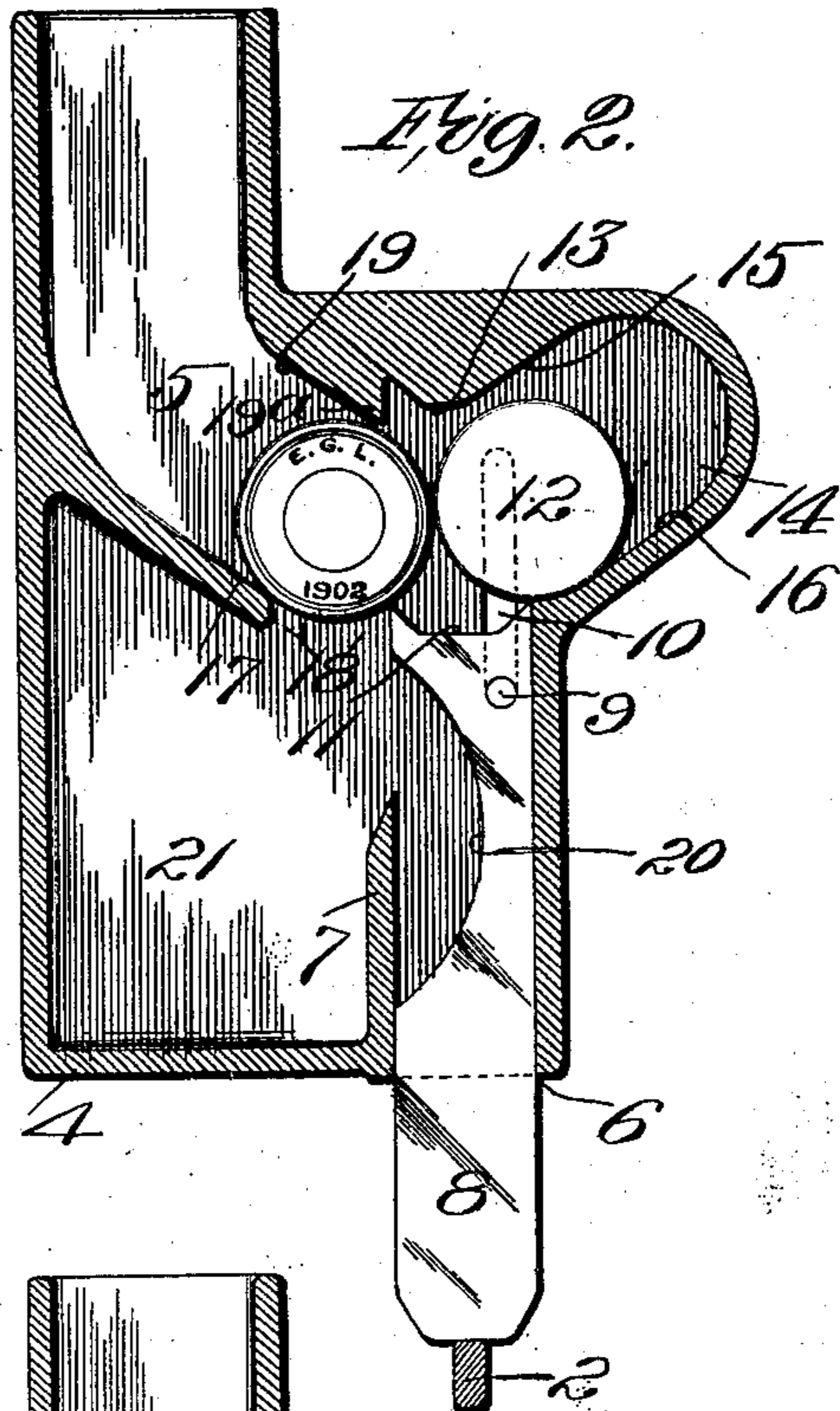
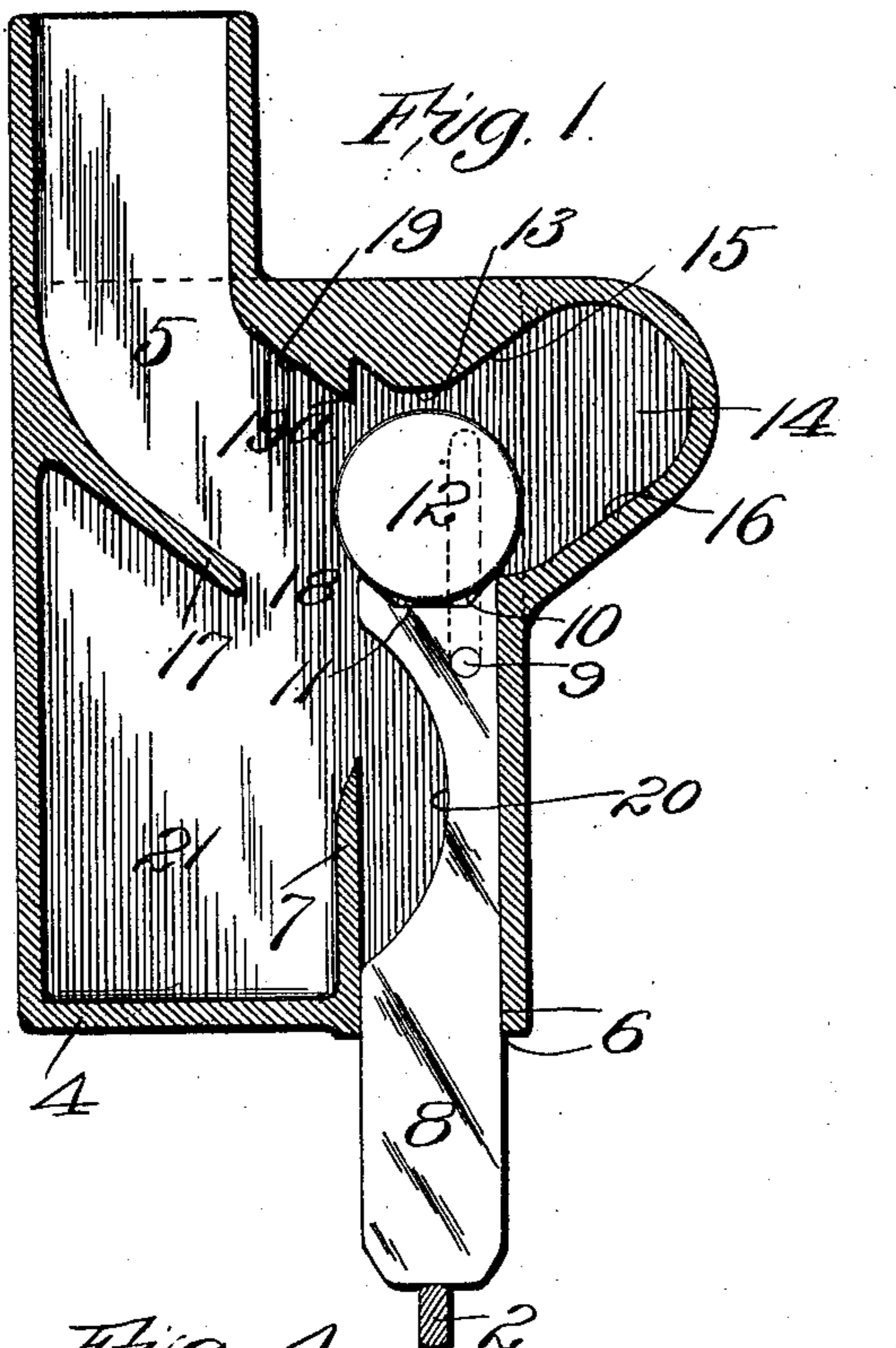
PATENTED JULY 7, 1903.

W. H. SCOTT.
TELEPHONE LOCK.

APPLICATION FILED JUNE 25, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



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UNITED STATES PATENT OFFICE.

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TELEPHONE-LOCK.

SPECIFICATION forming part of Letters Patent No. 732,788, dated July 7, 1903.

Application filed June 25, 1902. Serial No. 113,112. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. SCOTT, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Telephone-Locks, 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, reference being had to the accompanying drawings, forming part of this specification, in which—

Figures 1, 2, and 3 are elevations, chiefly in section, through the casing containing the locking mechanism, Fig. 1 showing the normal locked position of the slide-bar, Fig. 2 showing the position of the parts when a coin has operated against the locking-disk and before the receiver suspension-hook has been raised, and Fig. 3 showing the parts in the positions assumed when the receiver suspension-hook has been fully raised and the coin is being deposited into the coin-receptacle. Fig. 4 is a plan view showing the casing in section. Fig. 5 is a view of the general character of Fig. 1 and illustrating a modification, the locking disk or coin being shown in full lines in its normal locking position, such locking disk or coin and operating-coin being shown in heavy dotted lines in the positions which they occupy after the operating-coin has been inserted and before the receiver suspension-hook has been raised, and such locking disk or coin and the operating coin or token being shown in dot-and-dash lines in the positions which they occupy when the receiver suspension-hook and slide-bar have been raised, as shown in dotted lines. Fig. 6 is a plan view of said modification, the casing being shown in section; and Fig. 7 is a view of the general character of Fig. 1, illustrating a further modification.

My invention relates to improvements in telephone-locks, my object being to provide a simple and efficient construction having but few parts.

To this end and also to improve generally upon devices of this character, my invention consists in the various matters hereinafter described and claimed.

Referring now more particularly to the drawings, 1 represents a portion of a telephone-box, which can be of any suitable construction, and 2 indicates the customary suspension-hook for the usual telephone-receiver 3. A box or casing 4 is secured to the wall or other suitable support to extend at the side of the telephone-box and over the said suspension-hook, said casing containing the hereinafter-described locking mechanism and being provided with a coin-raceway and also with a horizontal slot 6 in its bottom wall, suitable guides 7 preferably extending from said slot. Movable through said slot and between said guides is a substantially vertical slide-bar 8, whose lower end lies above the receiver suspension-hook 2 and locks said hook in its lowermost position for well-understood purposes, said slide-bar being preferably provided with a guide-pin 9, which operates in a slot 10 in one of the walls of the casing. The upper end of the slide-bar is provided with a seat 11, adapted to receive a locking-disk 12, said disk when in said seat lying beneath a projection or stop 13, formed upon the casing, as illustrated in Fig. 1. A pocket 14 is provided upon the side of the slide-bar opposite the raceway, and said pocket has upwardly and outwardly inclined upper and lower walls 15 and 16, respectively, the lower end of the wall 16 substantially coinciding with the upper edge of the slide-bar adjacent the same and the upper inclined wall 15 extending downwardly and inwardly to a point which lies upon the inner side of the center of the locking-disk when said disk is thrown into the position indicated in Fig. 2.

Between the edge of the slide-bar toward the raceway and the lower wall 17 of said raceway there is a space 18 of less width than the coin by which the machine is adapted to be operated, said space permitting the coin to seat itself between the end of the wall 17 and the upper end of the slide-bar. The lower and upper walls 17 and 19 of the raceway extend upwardly and outwardly from the slide-bar, and the upper wall 19 extends to a point upon the inner side of the center of the operating coin or token when said coin

has been deposited in the raceway and is in the position indicated in Fig. 2. The slide-bar has a recess 20 formed in its side toward the raceway, said raceway being of such size that when the slide-bar is fully elevated it forms a continuation of the raceway and connects said raceway with the coin-receptacle 21, thus providing a passage for the coin.

Normally the parts lie as shown in Fig. 1, the locking-disk 12 resting in the seat in the top of the slide-bar and under the projection or stop 13, so that if an attempt is made to raise the receiver suspension-hook 2 the locking-disk engages the said stop or projection and upward movement of the said hook is impossible. When a coin or token is dropped into the raceway, it engages the edge of the locking-disk and forces said disk into the position shown in Fig. 2, the coin itself seating between the end of the wall 17 and the upper corner of the slide-bar. When the parts are in this position, the locking-disk has its center above and substantially in line with the edge of the slide-bar, and the inclined upper surface of the pocket extends to the inner side of said center, as previously explained, while the upper inclined wall 19 of the raceway also extends to the inner side of the center of the coin. The slide-bar is now free to be raised, and when the receiver is lifted from the suspension-hook the usual spring which operates said hook causes the hook to rise and the slide-bar is moved upwardly, this movement of the bar serving to part the coin and the locking-disk, the latter being thrown up the inclined way of the pocket, as illustrated in Fig. 3, and the former being moved backwardly in the raceway until the recess 20 in the side of the slide-bar has come into such relationship with the raceway that the coin can pass from said raceway into the coin-receptacle, as shown in Fig. 3. As soon as the receiver is again placed upon the suspension-hook such hook falls, and the support being removed from the vertical slide-bar this bar falls of its own weight, thus permitting the locking-disk to ride downwardly into the seat in the upper end of the slide-bar, the parts being thus brought into their normal locking positions, as shown in Fig. 1. The space between the inner end of the upper wall of the raceway and the upper corner of the slide-bar toward said raceway is less than the width of the locking-disk, so that the pocket retains the locking-disk and there is no possibility of said disk falling beyond its proper position.

In Figs. 5 and 6 I have illustrated a modification. In such modified structure the slide-bar 8 has a coin-seat 11 in its upper end, and the casing is provided with a stop or projection 13 above said coin-seat, said stop or projection being preferably a wall of a recess 13^a. The edges of the slide-bar are inclined downwardly and outwardly at their upper ends to produce the cam-faces 22 and 23, and upon the side of the slide-bar oppo-

site the raceway is a stop or shoulder 24. A channel 25 of a size to permit the passage of a coin connects the raceway with the coin-receptacle 21.

When the machine constructed in accordance with Figs. 5 and 6 is installed, a coin or token 26 is deposited in the raceway and comes to rest in the seat 11 and under the stop or projection 13 and the recess 13^a. If then it is attempted to raise the slide-bar, the coin or token engages the said stop and enters the said recess, thus preventing further upward movement of said bar. When a second coin or token is deposited in the raceway, said deposited or operating coin strikes the locking coin or token and throws the same out of its seat 11 and into a seat formed between the stop 24 and the upper corner of the slide-bar toward said stop, as shown in heavy dotted lines, the operating-coin itself resting against the locking-coin 26 and also upon the bottom wall of the raceway. Thus the inclined faces 22 and 23 of the slide-bar lie between the two coins or disks, as shown. The slide-bar is now free to be raised, and when the receiver is lifted from the suspension-hook the bar is raised in the manner heretofore described, and in the upward movement of the bar the inclined faces engage the locking-coin and the operating-coin and part the same, the operating-coin being forced backwardly along the downwardly and inwardly inclined lower wall of the raceway and the locking-coin being thrown upwardly and outwardly over the stop 24, so that the said locking-coin drops into the coin-receptacle. When the receiver is again placed upon the suspension-hook, the slide-bar 8 falls, and as the operating-coin has been supported in the raceway merely by the edge of the slide-bar as soon as the slide-bar reaches its normal position the said operating-coin falls into the seat 11, and thus becomes a locking-coin, the parts being then in normal locked position ready for further operation.

Fig. 7 illustrates a further modification of my invention. Here the parts are constructed as illustrated in Figs. 1 to 4; but the raceway 5 is so proportioned that a pusher-bar 27 can operate through a slot 28 in the casing to bring the lower inclined face 29 of said bar against the operating-coin when such coin rests with its periphery in engagement with the locking-disk when such disk is in its seat in the slide-bar. Thus should the impact of the operating coin or token be insufficient to throw the locking-disk from its seat the plunger or pusher bar 27 can be forced inwardly to cause its cam end 29 to engage the operating-coin and throw said coin and the locking-disk into the position shown in Fig. 2, the pusher-bar being retracted by a suitable spring 30.

I am aware that many minor changes in the construction, arrangement, and combination of the several parts of my device can be made

and substituted for those herein shown and described without in the least departing from the nature and principle of my invention.

It will be noted that in the mechanism herein shown and described the locking-disk is a free locking member—i. e., said locking-disk is not fastened by pivoting or otherwise. The end of the upper wall 19 of the coin-raceway is so spaced from the upper edge of the slide-bar that the distance between said points is less than the width of the locking member and of the coin designed to operate the device, whereby said wall end becomes an arresting member 19^a to limit the movement of both the locking-disk and the operating-coin, thus preventing the disk from leaving its retaining-pocket and preventing the operating-coin from entering said pocket.

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

1. In a mechanism of the character indicated, a vertically-movable bar, a stop beyond the upper end of said bar, a movable locking member intermediate said bar and stop, a coin-raceway leading a coin directly to said locking member, means for supporting one of the two last-mentioned bodies at one side of said bar and in the path of movement of said bar but out of locking position and in position to support the other of said bodies in unlocking position at the other side of said bar, whereby when said bar moves it moves between said bodies, means whereby when said bar thus moves and engages one of said bodies said body is discharged, and means whereby upon the reverse movement of said bar the other of said bodies moves into locking position intermediate said bar and stop; substantially as described.

2. In a mechanism of the character indicated, a vertically-movable bar, a stop beyond the upper end of the same, a movable locking member intermediate said bar and stop, a coin-raceway leading directly to said locking member, means whereby the deposited coin is supported in unlocking position at one side of said bar and in the path of movement of the same and said coin thus supported supports said locking member in unlocking position at the other side of said bar, whereby when said bar moves it moves between said coin and said locking member, means whereby when said bar thus moves and engages said coin the latter is deposited, and means whereby upon reverse movement of said bar said locking member moves into locking position; substantially as described.

3. In a mechanism of the character indicated, a movable bar, a stop, a locking-member seat intermediate said bar and stop, a bodily-movable locking member in said seat, means whereby upon movement of said bar after a coin has been deposited and has engaged said locking member one of said last-mentioned two bodies is discharged upon one side of said bar into a coin-receptacle, and a

guideway upon the other side of said bar, said guideway leading to said locking-member seat and inclining upwardly therefrom; substantially as described.

4. In a mechanism of the character indicated, a longitudinally-movable bar, a stop in the line of longitudinal movement of said bar and beyond one end of the same, a locking-member seat intermediate said bar and stop, a bodily-movable locking member for locking said bar and adapted to seat in said seat, and a locking-member-receiving guideway at the side of said bar, said guideway leading to said seat and inclining upwardly therefrom; substantially as described.

5. In a mechanism of the character indicated, a movable bar, a stop, a locking-member seat intermediate said bar and stop, a bodily-movable locking member for locking said bar and adapted to seat in said seat, and a locking-member-receiving guideway leading to said seat and inclining upwardly therefrom, said bar having movement across the open end of said guideway, whereby the bar, when in unlocked position, obstructs said guideway and supports the locking member in unlocking position therein; substantially as described.

6. In a mechanism of the character indicated, a movable bar, a stop, a locking member intermediate said bar and stop, and a coin-raceway lower wall separate from said locking member and adapted to lead a deposited coin to said locking member, said wall having its lower end spaced from one edge of said bar to produce a coin-seat, and said edge of said bar being provided with a recess adapted, when the bar is moved, to cooperate with the raceway to produce a discharge-passage for the coin; substantially as described.

7. In a mechanism of the character indicated, a movable bar, a stop, a free locking member intermediate said bar and stop, an inclined way upon one side of said bar and leading between said bar and stop, means for preventing movement of said locking member beyond locking position toward the side of the bar opposite said way, and a coin-raceway upon the side of said bar opposite said inclined way and adapted to lead a coin into position to move said locking member from locking position, the lower wall of said raceway having its end spaced from said bar to produce a coin-seat and said bar having a recess which, when the said bar is moved, cooperates with said raceway to produce a discharge-passage for the coin; substantially as described.

8. In a mechanism of the character indicated, a movable bar, a stop, a rolling locking member intermediate said bar and stop, and a coin-raceway adapted to lead a coin into position to move said locking member into unlocking position; substantially as described.

9. In a mechanism of the character indicated, a movable bar, a stop, a rolling locking member for locking said bar and intermedi-

ate said bar and stop, and a pocket for confining said rolling locking member; substantially as described.

10. In a mechanism of the character indicated, a movable bar, a locking member therefor, a coin-raceway adapted to lead a coin to said locking member, and an arresting member for both the deposited coin and the locking member and spaced from the bar a dis-

tance less than the width of such coin and locking member; substantially as described. 10

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 21st day of June, 1902.

WILLIAM H. SCOTT.

Witnesses:

GALES P. MOORE,

GEORGE BAKEWELL.