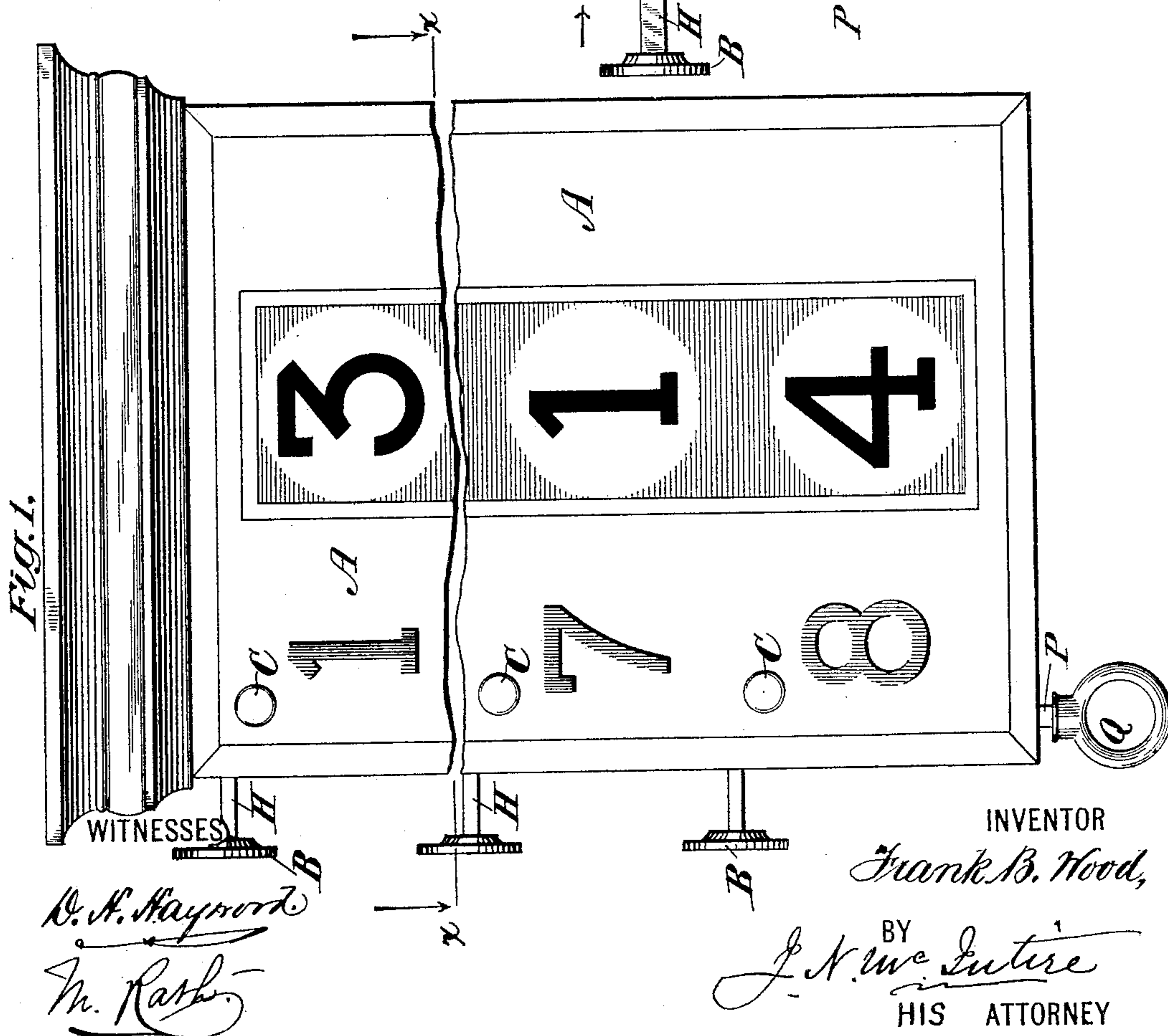
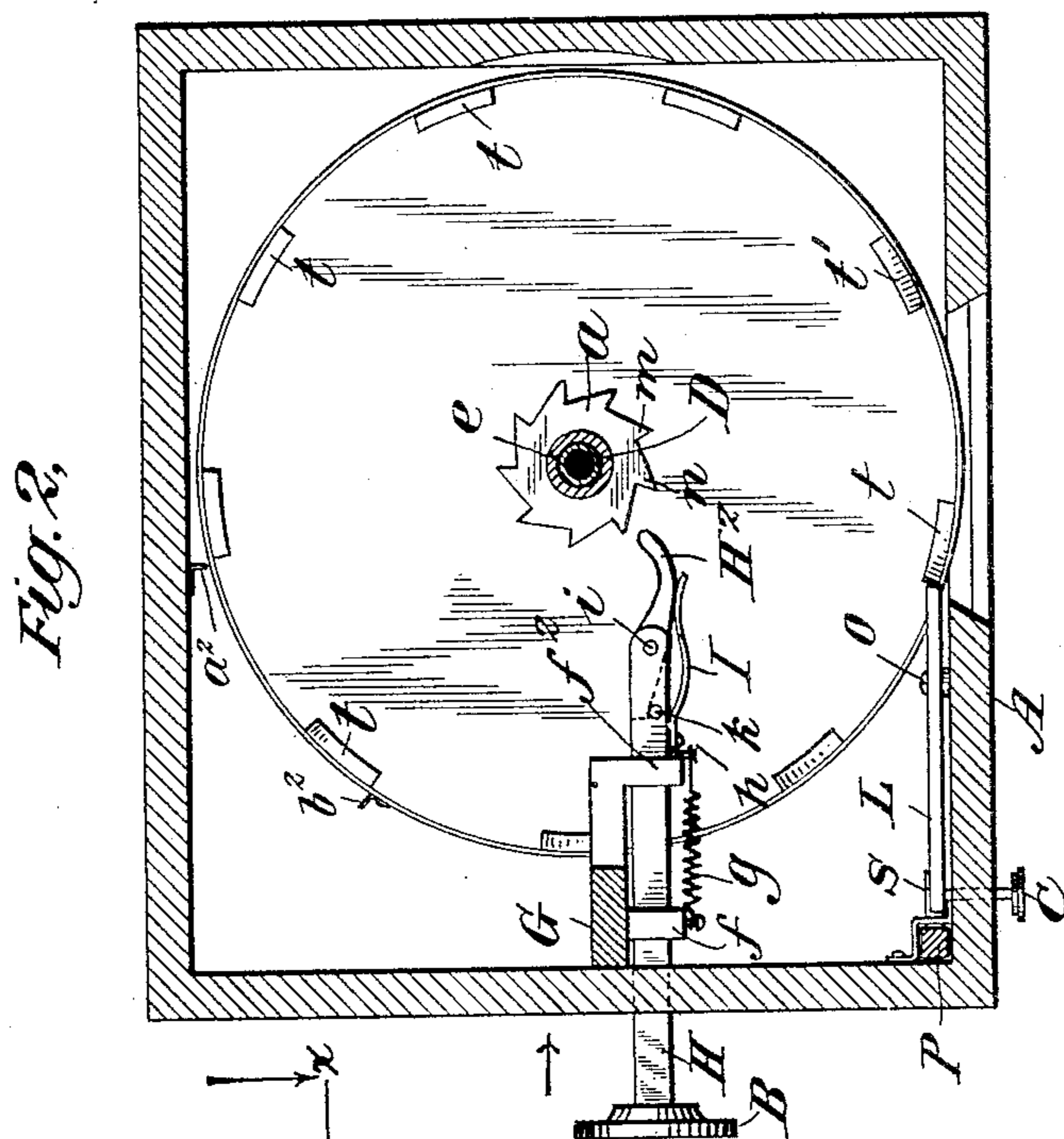


2 Sheets—Sheet 1.

No. 578,906.

Patented Mar. 16, 1897.



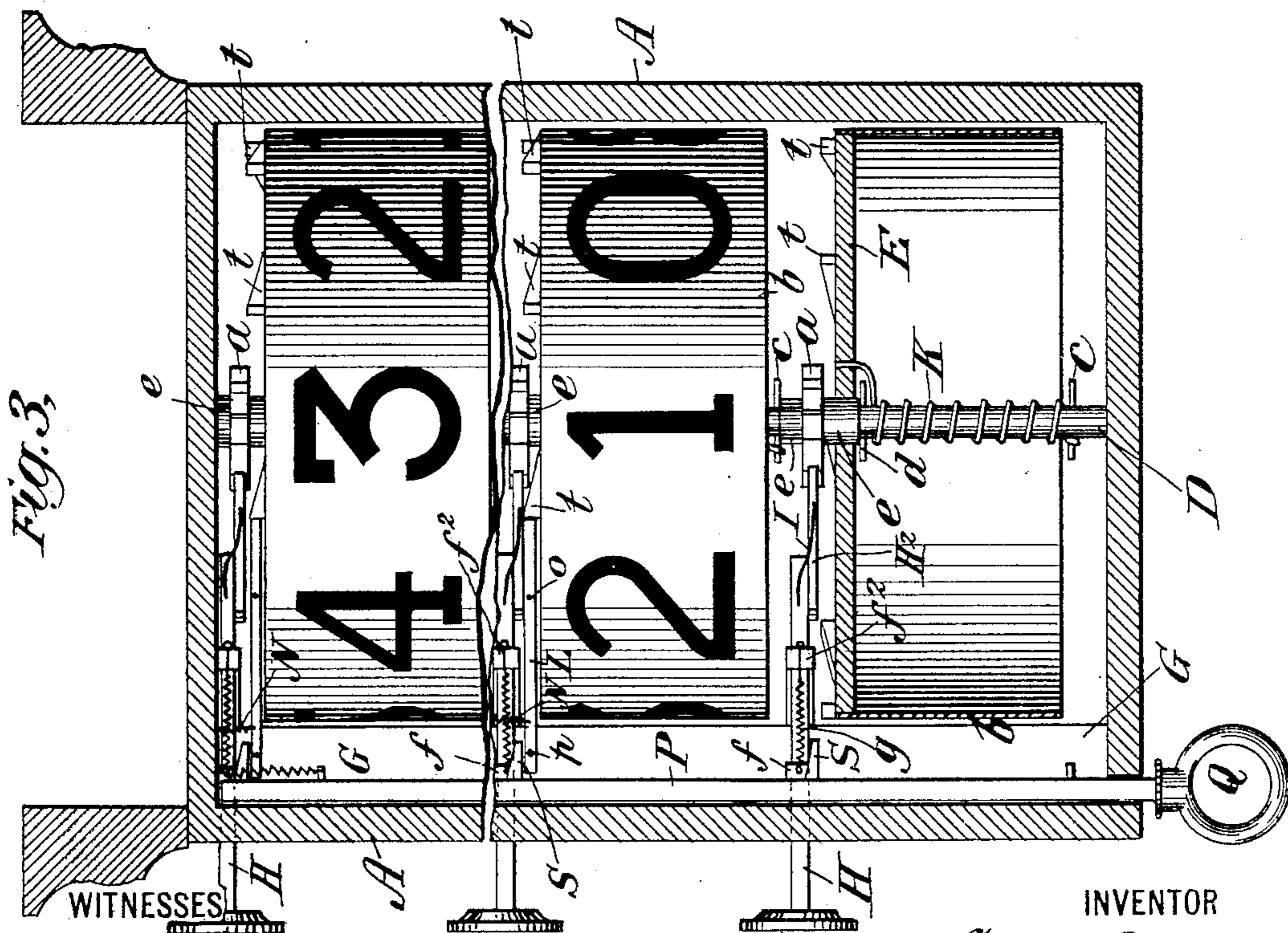
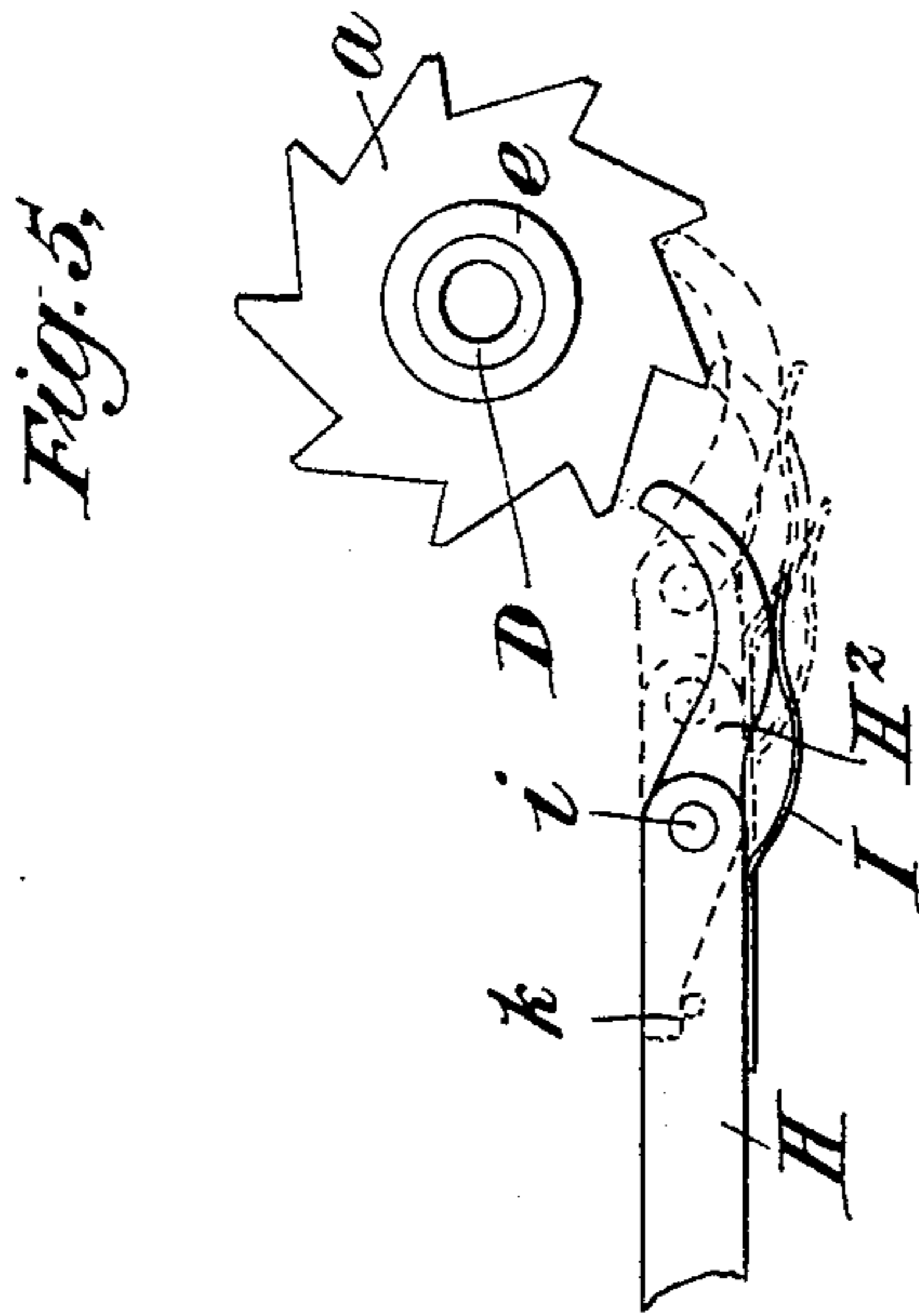
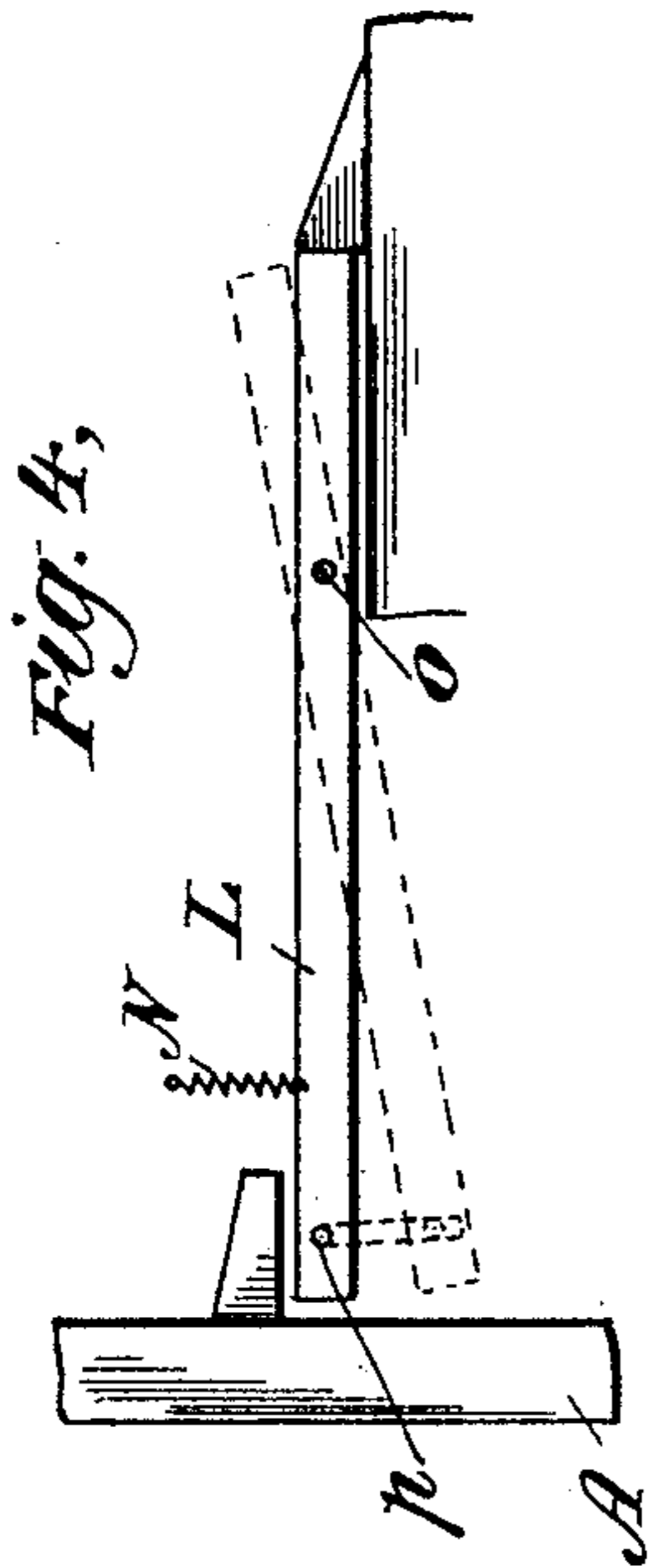
(No Model.)

2 Sheets—Sheet 2.

F. B. WOOD.
POOL GAME COUNTER.

No. 578,906.

Patented Mar. 16, 1897.



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POOL-GAME COUNTER.

SPECIFICATION forming part of Letters Patent No. 578,906, dated March 16, 1897.

Application filed September 25, 1896. Serial No. 606,935. (No model.)

To all whom it may concern:

Be it known that I, FRANK B. WOOD, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a certain new and useful Improvement in Pool-Game Counters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to devices or contrivances for keeping or scoring the game of fifteen-ball pool, played on a pocket billiard-table, and to that species of such contrivances in which the score or count of each player is kept by an indicator mechanism which under the manipulation by hand of the game-keeper is caused, as the game progresses, to display contiguously to or in conjunction with the number assigned to each player a sign or figure truly denoting the number of balls properly due to the credit of each such player.

Various indicator devices or pool-counters of the species just above alluded to have been heretofore devised and patented, but I propose to provide for use one which, while it shall be perfectly efficient in practical operation and easy of rapid manipulation, shall be exceedingly simple, strong, compact, and durable in its construction, (and hence both as to first and final cost very cheap,) while at the same time presenting a unique appearance and occupying comparatively small space, though displaying large (and easily-seen) count numbers or signs.

To these ends and objects my invention consists in the novel construction of indicator which will be found hereinafter fully described, and which will be most particularly pointed out in the claims of this specification.

To enable those skilled in the art to which my invention relates to make and use pool-counters embodying the same, I will now proceed to more fully describe my improved contrivance, referring by letters to the accompanying drawings, which form part of this specification and in which I have shown my invention carried out under that precise form of device under which I have so far practiced it, though variations of form and modifica-

tions of construction may of course be made without departing from my invention.

In the drawings, Figure 1 is a partial front elevation of my improved indicator or pool-counter. Fig. 2 is a horizontal section of the same at the line *xx* of Fig. 1. Fig. 3 is a view similar to Fig. 1, but with the front of the box or case broken away, so as to expose to view the interior mechanism. Figs. 4 and 5 are detail views.

In Figs. 1 and 3 I have represented the middle portion of the indicator broken out and the top and bottom portions moved toward each other in order to condense the drawings and at the same time show the working parts on a comparatively large scale, and whenever the same part appears in more than one figure I have designated it always by the same reference-letter.

A is the wooden case or box-like structure within which are located all the working parts of the indicator, and which, as usual with indicators, is designed to be placed, preferably, against a wall-support in such proximity to the pool-table as will render it convenient for the game-keeper or attendant of the pool-table to manipulate the devices to be worked by him and for the players to observe the scores of the several players, as indicated.

On the face of the case A are arranged in a vertical column a set of numerals running from "1" to "8," more or less, to designate the marker or indicator devices allotted to the several persons who may engage in the game in a well-understood manner, and opposite to each number (in the same horizontal plane therewith) is a circular opening in the face of, or front board of, the case A, at which openings are displayed, as will be presently explained, the scores—*i. e.*, the number of balls holed by and credited to each player—as the game progresses.

As shown for illustration in Fig. 1, player No. 1 has to his credit three balls, while player No. 8 has four, player No. 7 has one ball, and so on.

The visible means by which the game-keeper operates the indicator to thus cause it to show the score of each player are, first, the push-buttons B, a series of which project about equi-

distant and in vertical line at one side of the case A and which operate to rotate cylindrical counter devices inside the case, each of which carries numbers from "1" to "8," inclusive, and, second, the series of buttons or knobs C, that project, as seen, from the front of the case A and which operate to permit such changes in the numbers displayed as may be necessary whenever a player's count may have to be reduced (by the game-keeper) on account of such player having forfeited a point or more of his indicated score, all as will be presently more fully explained.

Within the box or case A is arranged (in about the position seen at Figs. 2 and 3) a stationary vertical shaft which, by preference merely, is composed of a cylindrical metal tube (or a piece of round tubing) D and which is suitably secured to the top and bottom parts of said case; and on this shaft are mounted, to turn freely thereon, a series of circular plates or disks E, formed or provided with hubs *e*, each of which latter is formed with a ratchet-wheel *a*, located immediately above the top surface of the disk, while from the periphery of each disk E is a depending cylindrical rim *b*, (see Fig. 3,) on the exterior surface of which are printed or painted (in any desired artistic style) the eight circular colored spaces containing numerals from "1" to "8," inclusive, and one blank or cipher space.

In practice, so far, I have made the disks E of wood and the rim *b* of cardboard, bent around and securely attached at its upper part to the peripheral edge of the disk, and I have had each of said rims printed to display a series of nine circular spaces, colored in bright red, with white numerals running from "1" to "8," inclusive, on eight of the nine colored spaces; but all these details, both of construction and appearance, may of course be varied at pleasure.

As a simple means of retaining in place vertically on shaft D each of the hub-like devices *e* of each revoluble "number-wheel," so to speak, two round wire pins or keys *c* and *d* are inserted in diametrically arranged holes in the shaft D, one immediately above and the other immediately beneath said hub-like parts *e*.

As plainly seen at Fig. 2, each ratchet-wheel *a* has nine teeth, so that if said wheel be intermittently rotated one tooth at a time it will, during one rotation, cause each of the nine colored spaces of rim *b* (one blank and the other eight numbered) to successively coincide with that opening in the front of the case A at which said spaces are to be displayed; and to effectuate this necessary movement of these parts I use the mechanism which I will now explain.

Between the peripheries of the disks E and one side of the case A is arranged rigidly a vertical supporting-board G, on the front side of which are located at intervals, and so that

each one will lie in the same horizontal plane as that in which is located one of the ratchet-wheels *a*, a series of push-bars II, the outer end of each of which is provided with one of the push-buttons B hereinbefore alluded to, and the inner end of which operates as a pawl to actuate one of said ratchet-wheels.

As shown, (see Fig. 2,) each of the bars II is arranged to slide in housings *f* and *f*² of the supporting board or frame G and is provided with a spiral spring *g*, (one end of which is fastened to the housing *f* and the other to a pin or lug *h* of the bar,) by which said bar, whenever it may have been pushed in the direction indicated by the arrow at Fig. 2, will be returned to its normal position. When in this position, its operative end or pawl-point occupies a position such that the ratchet-wheel *a* can be rotated by other means (for another purpose to be presently described) without interference of its teeth with said push-bar point.

The operative or ratchet-wheel-actuating end II² of the push-bar is preferably made of a separate piece pivoted at *i*, so that when occasion may require it the part II² can vibrate into the position indicated by the dotted lines; and the necessity for this movement arises whenever, after having pushed the ratchet-wheel one-ninth of a revolution, for instance, to force tooth *m* to the position it occupies at Fig. 2, the push-bar has to be returned to its normal position, (by spring *g*,) for otherwise the point or end portion of the pawl could not return to its former position on account of an interference with the tooth *n* of the ratchet-wheel.

To insure the vibration of the part II² back to its normal position, I employ the light leaf-spring I and stop-pin *k*, as shown.

The throw of the push-bar forward may be regulated to insure the rotation of the ratchet-wheel exactly one-ninth of a turn by the distance between button B and the casing, and its return by placing the pin *h* so that it will act as a stop-pin against the housing *f*²; but, as will be seen presently, it is not important to nicely regulate the extent of motion of the push-bar so long as it can be pushed far enough, because even if the ratchet-wheel be turned more than one-ninth of a revolution it, together with its number wheel or rim *b*, will be automatically returned to the proper position the moment the push-bar ceases to act on the ratchet. This result is assured by the following means, viz: To the under side of each disk or to its ratchet-wheel is fastened the upper end of a spiral spring K, (see Fig. 3,) that is loosely coiled around the stationary shaft D, and the lower end of which is fastened to or engaged with one of the fixed pins or keys *c*, all in such manner that the rotation of the ratchet-wheel *a* operates to wind up or increase the tension of said spring K, which acts automatically, always against the tendency of the push-bar II, and so that the

instant said bar may have pushed the ratchet-wheel beyond exactly the right point it will be returned to said point by the spring K.

On the top surface of each disk E, near its perimeter, are nine equidistant ratchet-teeth or upwardly-projecting stops *t*, with which engage the inner ends of the spring detent-levers L, (see Figs. 2 and 3,) that prevent the number-wheel from being ever turned back too far by the actuating-springs K. As these detents, as well as the other coacting parts, are duplicates, a description of one will answer for all.

Each lever or detent L, as shown, is mounted pivotally on the inner face of the front board of the case A at *o* and is provided at its outer end with a short spindle or stud *p*, which projects through an oblong aperture in the said board, all in such manner that when the attendant may slightly depress the hand-piece or button C said lever L will be lifted at its opposite end sufficiently to release that one of the teeth or lugs *t* that it engages, and by thus freeing said tooth allow the disk E and its connections to be automatically rotated in a backward direction by the motive power of the partially or wholly wound up spiral spring K. Inasmuch as the teeth *t* are some distance apart and the outer end or longer arm of the lever L is constantly pulled up by a light spiral spring N, (see Figs. 3 and 4,) the descent of the inner or detent end of said lever in time to reengage with the next tooth *t* during the back movement of disk E is easily assured.

P is a vertically-arranged pull-bar arranged within the case near its front board and in line with and near to the outer ends of the series of detent-levers L and having its lower end protruded through the bottom of the case, as clearly shown, and provided, preferably, with a finger ring or loop, by means of which it can be taken hold of with one finger by the game-keeper to pull down said rod. This pull-rod has a series of laterally-projecting lugs S, (one for each bar L,) each of which overlies one of the levers L at the outer end of the latter, and whenever the game-keeper pulls down on the ring Q the result is that all of the detent-levers L are operated on in such manner as to release all of the toothed disks E and permit them all to be rotated backwardly by their actuating-springs K.

In assembling the working parts these springs should be set so that with the indicating devices all showing blanks each spring will be under a little tension, in order that all the disks E will be pressed slightly backward, or so that the tooth *t*, in contact with the detent-bar L, will be held against the latter by the action of spring K; and these springs should be so made that after any of the disks E shall have been rotated to display as high a count as the figure "8" on its rim *b* the spring of said disk will easily but surely return or rotate said disk back to the posi-

tion it occupied before the counting or registering operation began—i. e., to the dead-stop *a*².

After the foregoing description of the construction and operation of the working devices the following explanation will suffice to enable any one to operate or use my improved contrivance. Supposing all the numbered bands *b* to show blanks on the face of the indicator, whenever a player holes a ball the game-keeper, by pushing in the push-button B adjacent to the player's number on the face of the indicator, will cause the properly-numbered space of the proper disk-rim to appear at the circular opening in the front or face of the indicator; and no matter whether the game-keeper have to push said button in only once to register the holing of a single ball at one inning or have to successively push it in several times to count the holing of several balls by the same player at one inning, whenever the player's inning shall be over there will appear at the circular opening nearest to his play-number a figure that will indicate the number of balls holed by him—as, for instance, if the first player shall have holed three balls, as indicated at Fig. 1, his score will be correctly indicated. Whenever a player forfeits one of his holed balls, the game-keeper, taking hold of that one of the buttons C belonging to the player's number, (in the order of playing,) depresses the same, immediately releasing it, and as a result of this manipulation of said button one of the detent-levers L is operated so as to release the toothed disk E and permit the spring K of said disk to rotate the latter backwardly until its next tooth comes into contact with the inner end of detent-bar L. Of course this retrograde movement of the disk E, which shows a smaller digit at the display-opening in the front of the indicator, may be repeated whenever a player makes a losing stroke or forfeiture.

When the game is ended, either by reason of some one player having holed eight balls or by reason of some one with less than eight balls to his credit having holed more than any other player, the game-keeper simply takes hold of ring Q and, pulling down the rod P, holds the ring down until all the circular openings of the indicator display blank spaces of the disk-rims or indicator-drums, when the apparatus will be set or ready for reuse.

Having now so fully explained the construction and operation of my improved pool-counter that those skilled in the art can make and use it, what I claim as new, and desire to secure by Letters Patent, is—

1. In a pool-game counter, the combination with a suitable case having in its face a series of openings, for the display of a series of signs, or numbers, and a series of number, or sign drums, mounted so as to turn freely on a vertical shaft (in both directions); a series of ratchet-wheels each fast to one of said rev-

oluble drums; a series of push-bars, one end of each of which protrudes through the side of said case, that it may be manipulated by hand and the other end of which operates as
5 specified to actuate one of the said ratchet-wheels, and which, when in its normal position (or in a state of disuse) has its operative end, or point, located so that the said ratchet-wheel will be free to revolve in an opposite
10 direction; the whole constructed, arranged and operating in the manner and for the purpose hereinbefore set forth.

2. In a pool-game counter, the combination with a suitable case, having a series of display-openings in its face, of the series of number, or sign drums; a series of mechanisms such as specified, under the control of the attendant for separately rotating said drums in one direction one number-space at a time; a
20 series of detents under the control of the attendant; and a series of independently-acting springs, for effecting retrograde movements of the registering-drums; the combination being and operating so that after any
25 one, or more, drums shall have been set to register a count, or score, any one or more of them can be separately set back one, or more, spaces, or counts, to register a reduction in

a player's score, all substantially as hereinbefore set forth. 30

3. In a pool-game counter, the combination with a suitable case having a series of display-openings in its face, of the series of count-registering, revoluble, drums; means by which the attendant can rotate each of
35 said drums independently to score a count; mechanism by which each drum can, under the control of the attendant, be returned, or set back, independently, one space, to effect a reduction in the score indicated; and means
40 under the control of the attendant, by which all the registering, or counting drums, which may have been used during the scoring of the game, can be simultaneously returned to their
45 initial position (so as to all register blank) or for reuse in a new game; the whole constructed, arranged and operating together in the manner and for the purposes hereinbefore described.

In witness whereof I have hereunto set my
hand this 11th day of August, 1896. 50

FRANK B. WOOD.

In presence of—

L. F. SILVA,
JAMES J. BYRNES.