

E. F. PORTER.

## BASE BALL BATting AND REGISTERING DEVICE.

APPLICATION FILED OCT. 1, 1902. RENEWED NOV. 10, 1904.

3 SHEETS—SHEET 1.

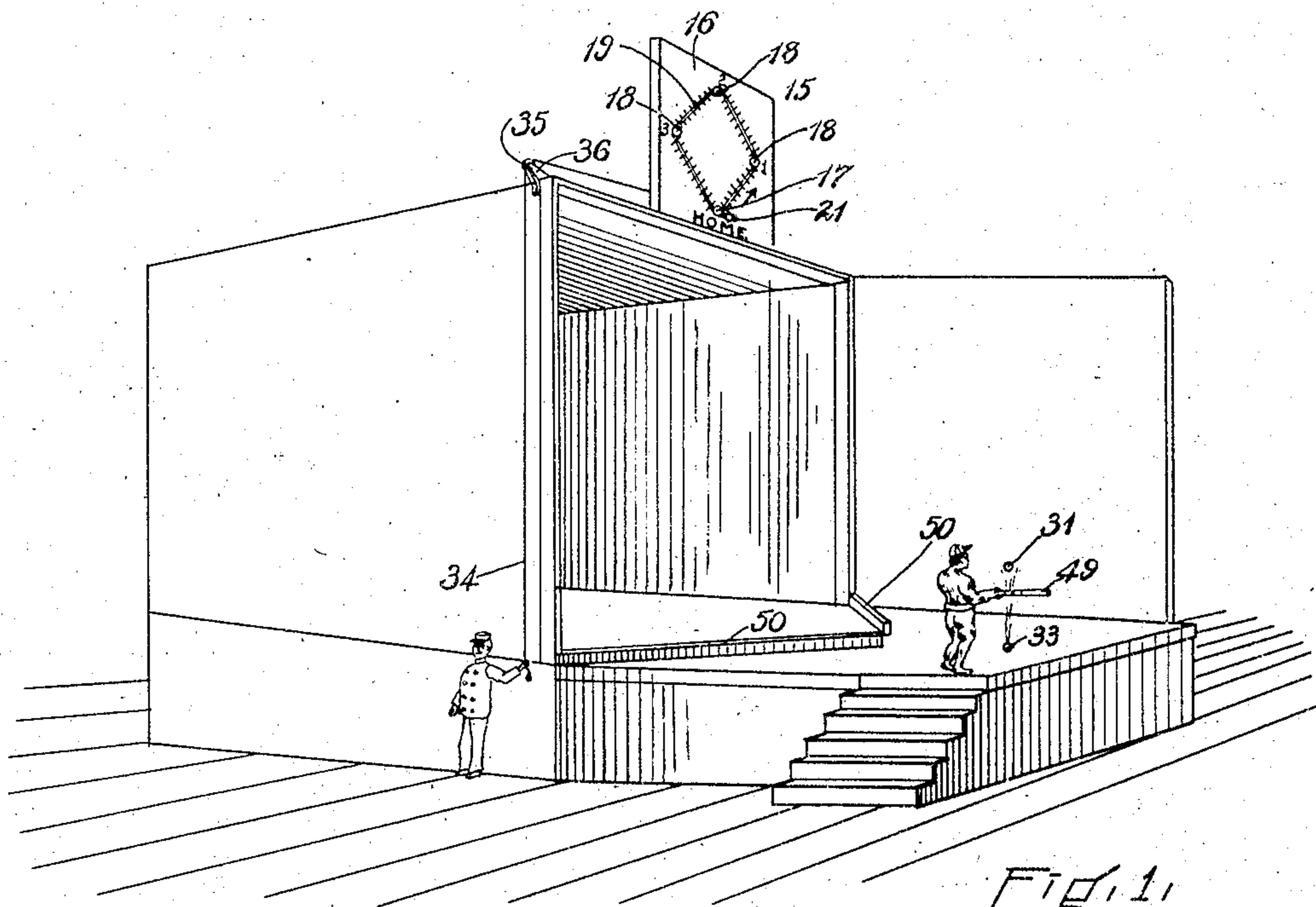


Fig. 1.

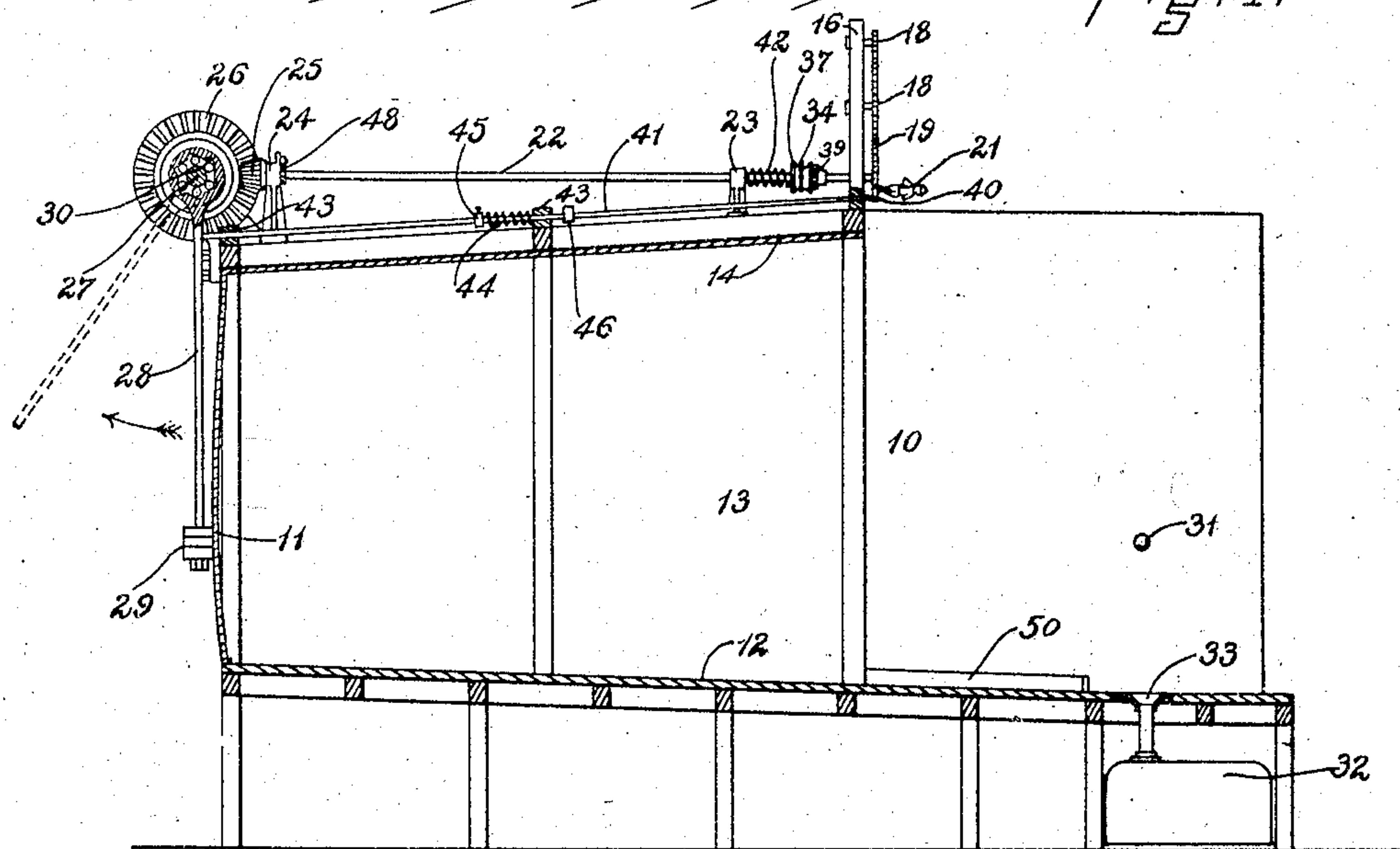


Fig. 2.

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Franklin E. Low.

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by his Attorney,

Charles S. Gooding.

No. 778,266.

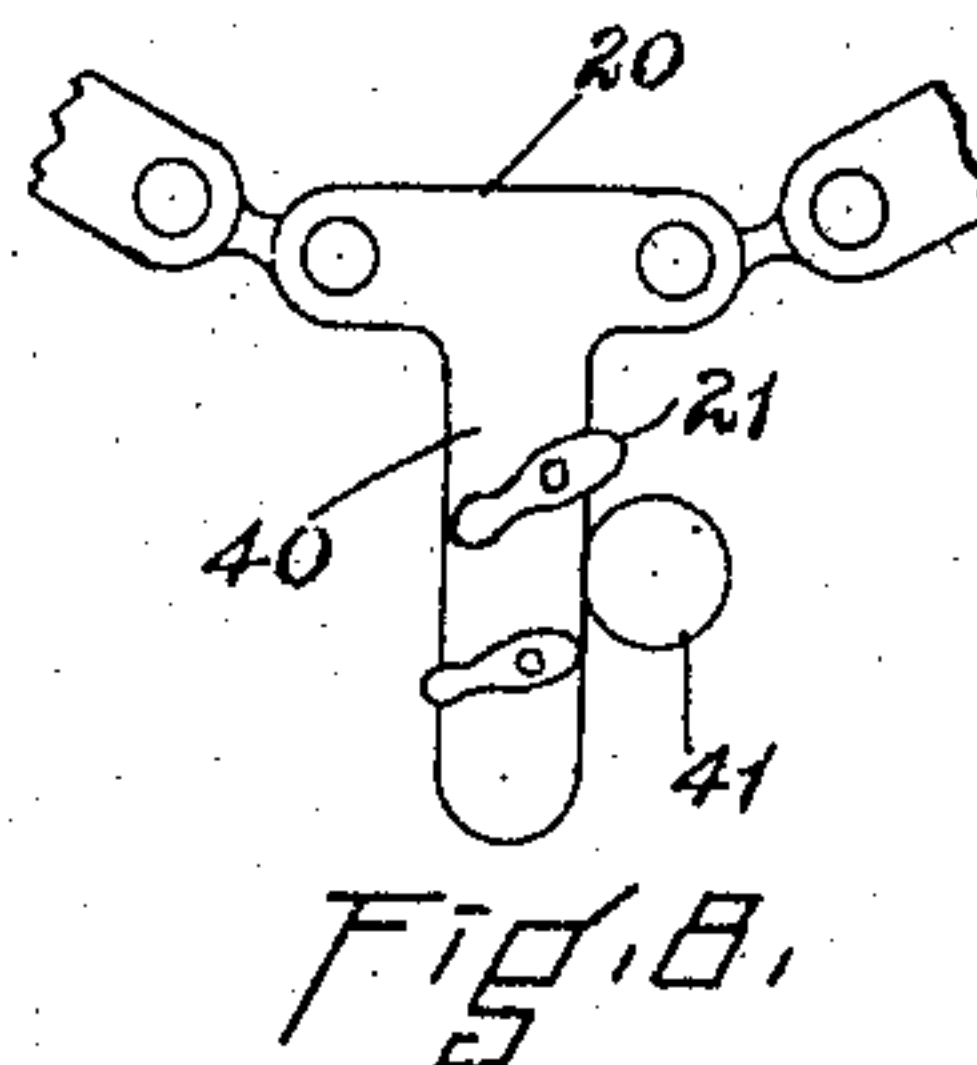
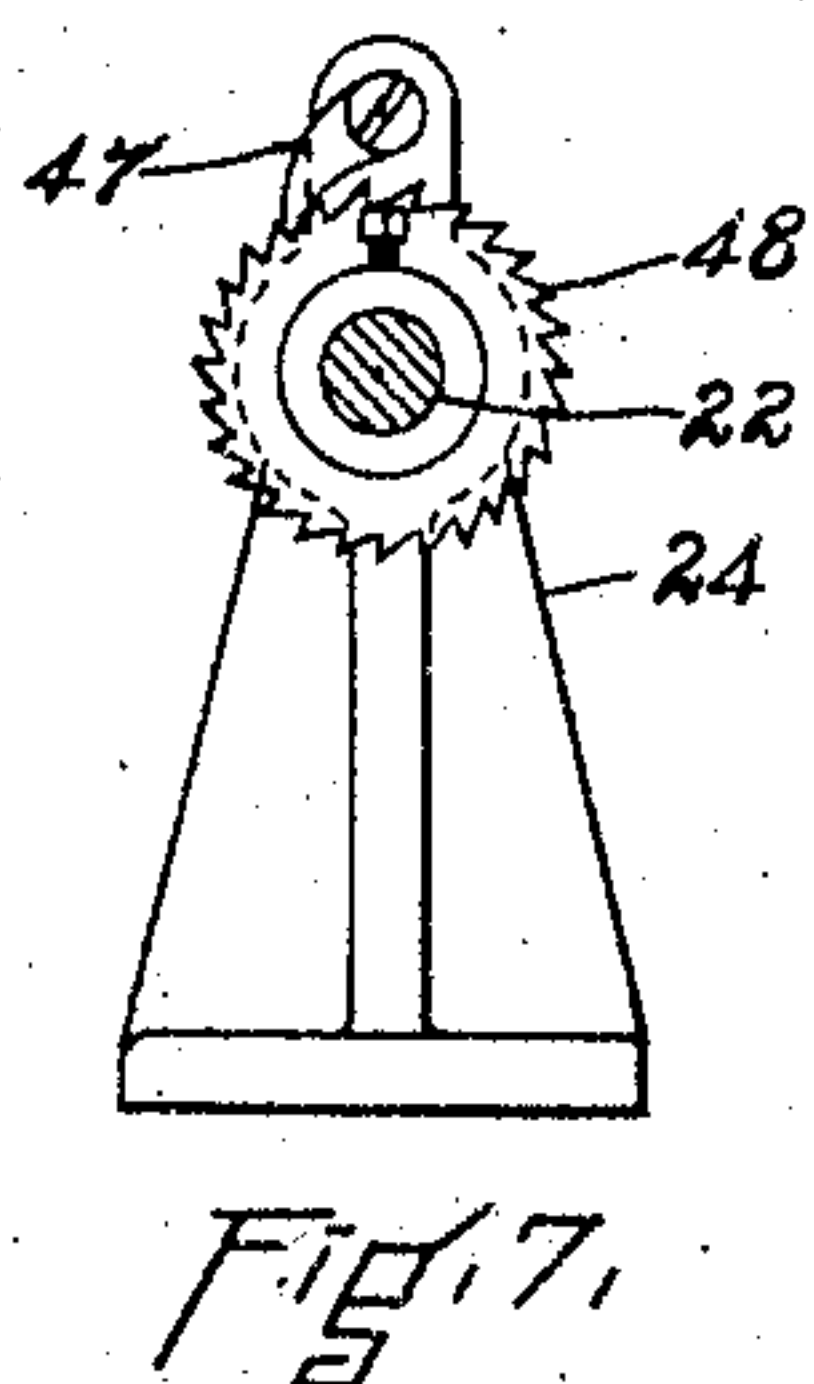
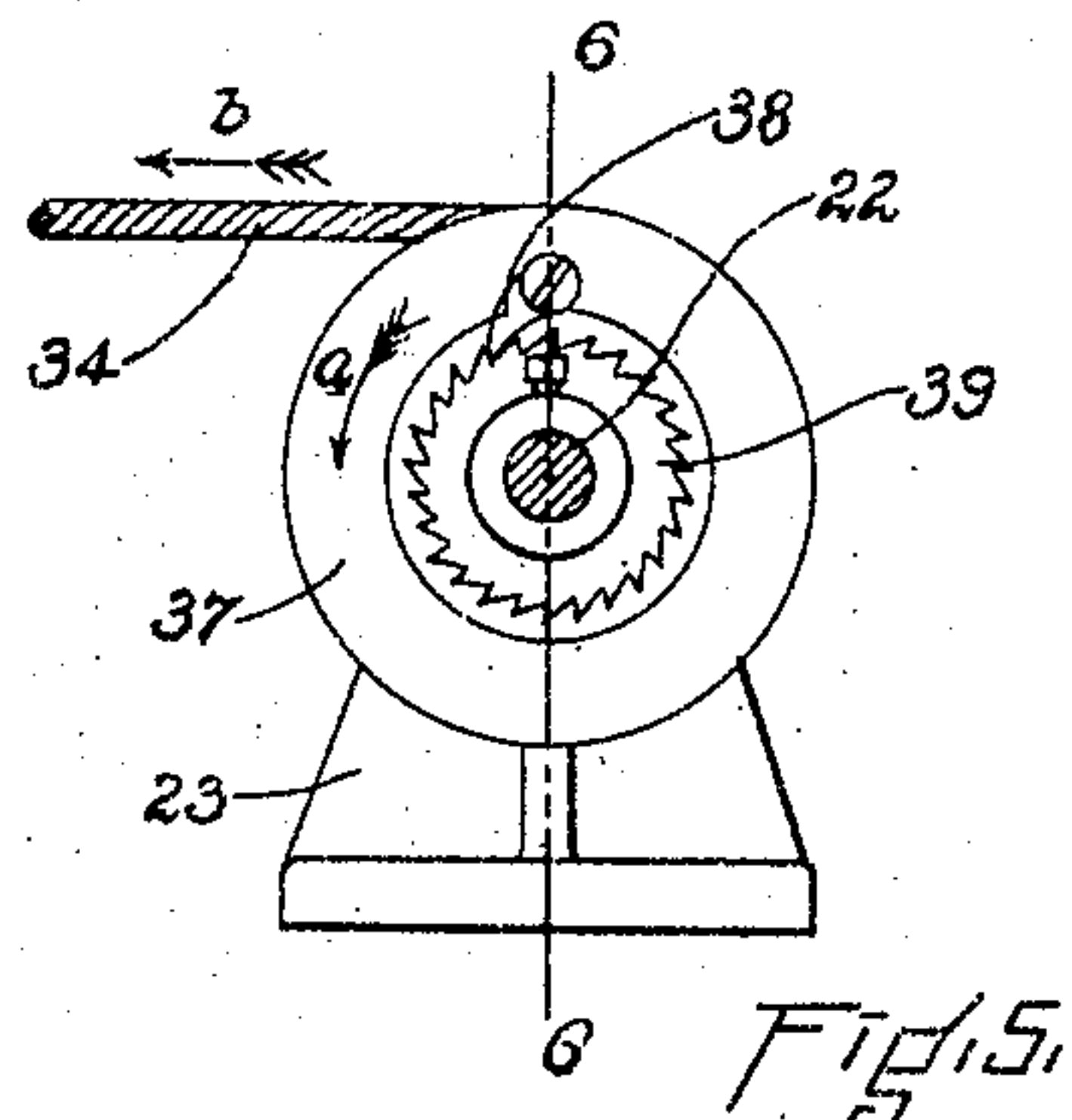
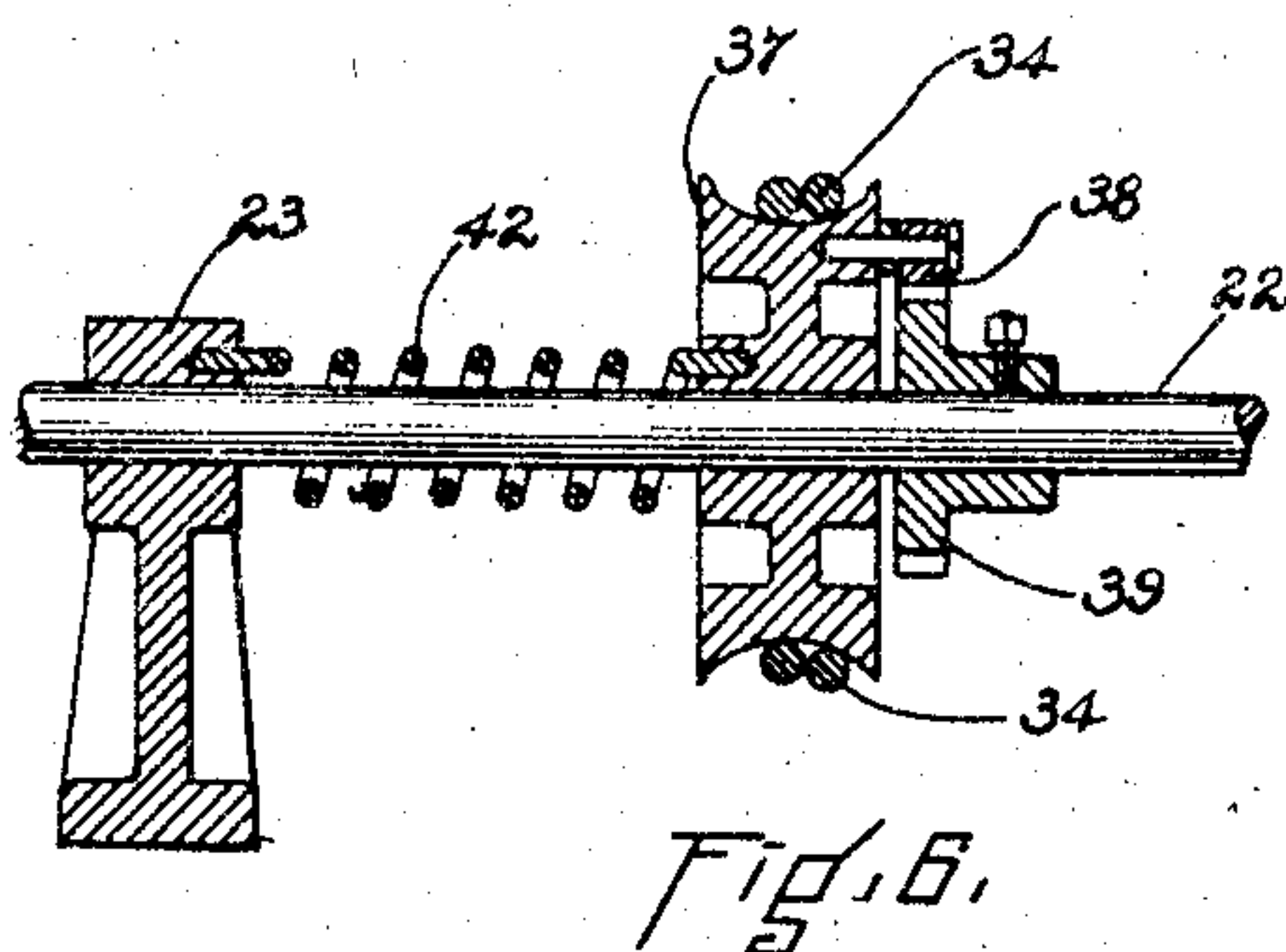
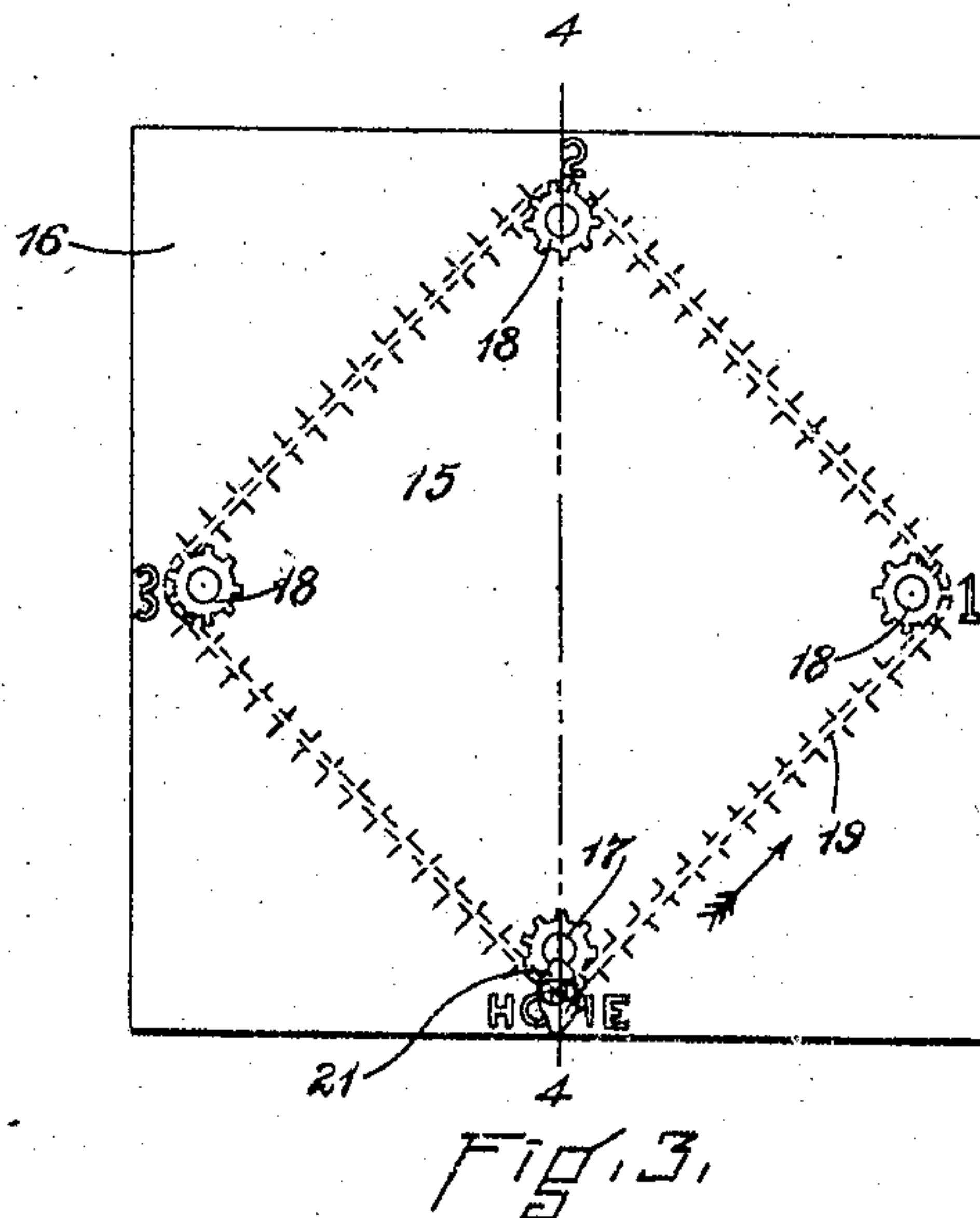
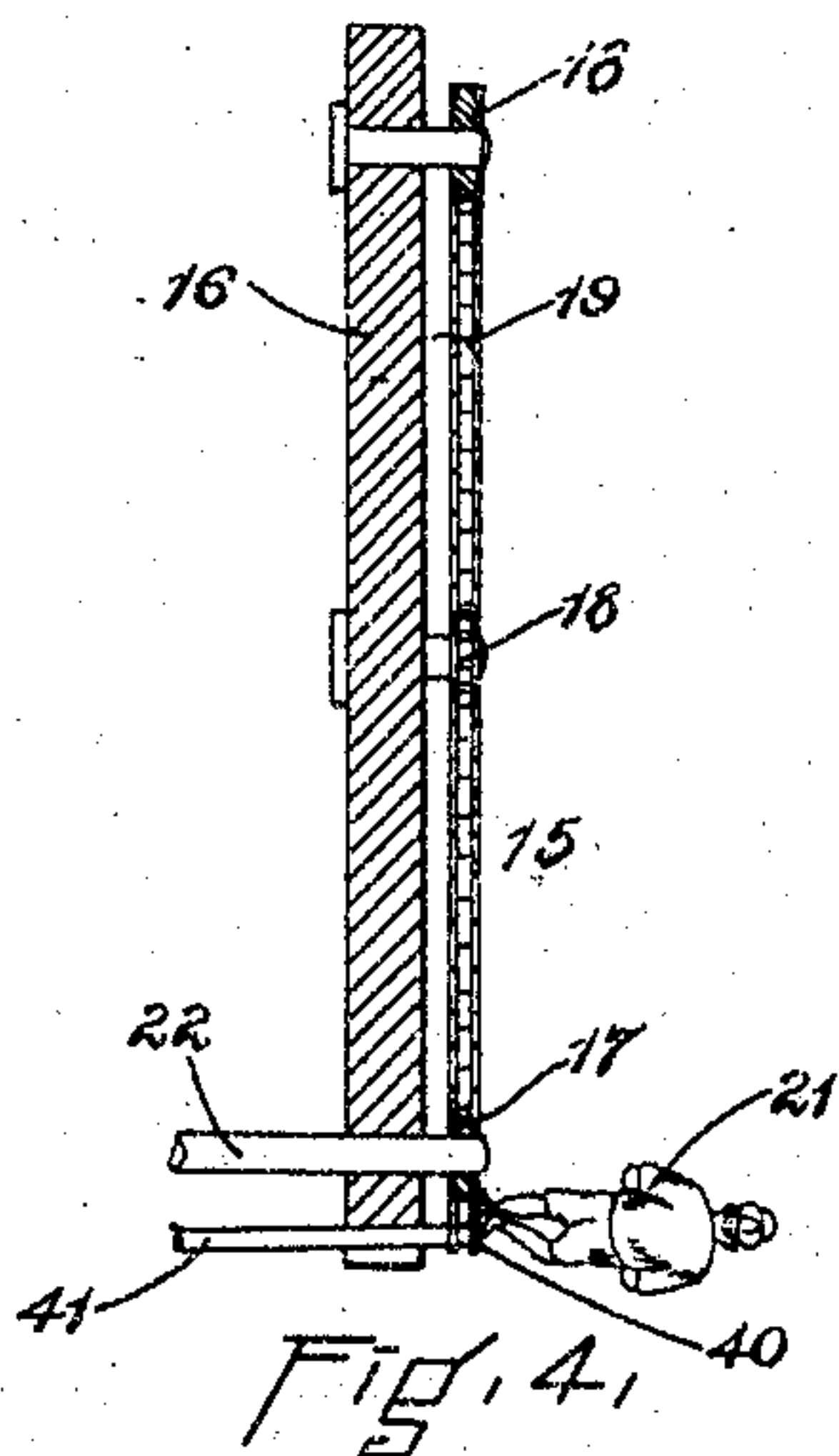
PATENTED DEC. 27, 1904.

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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

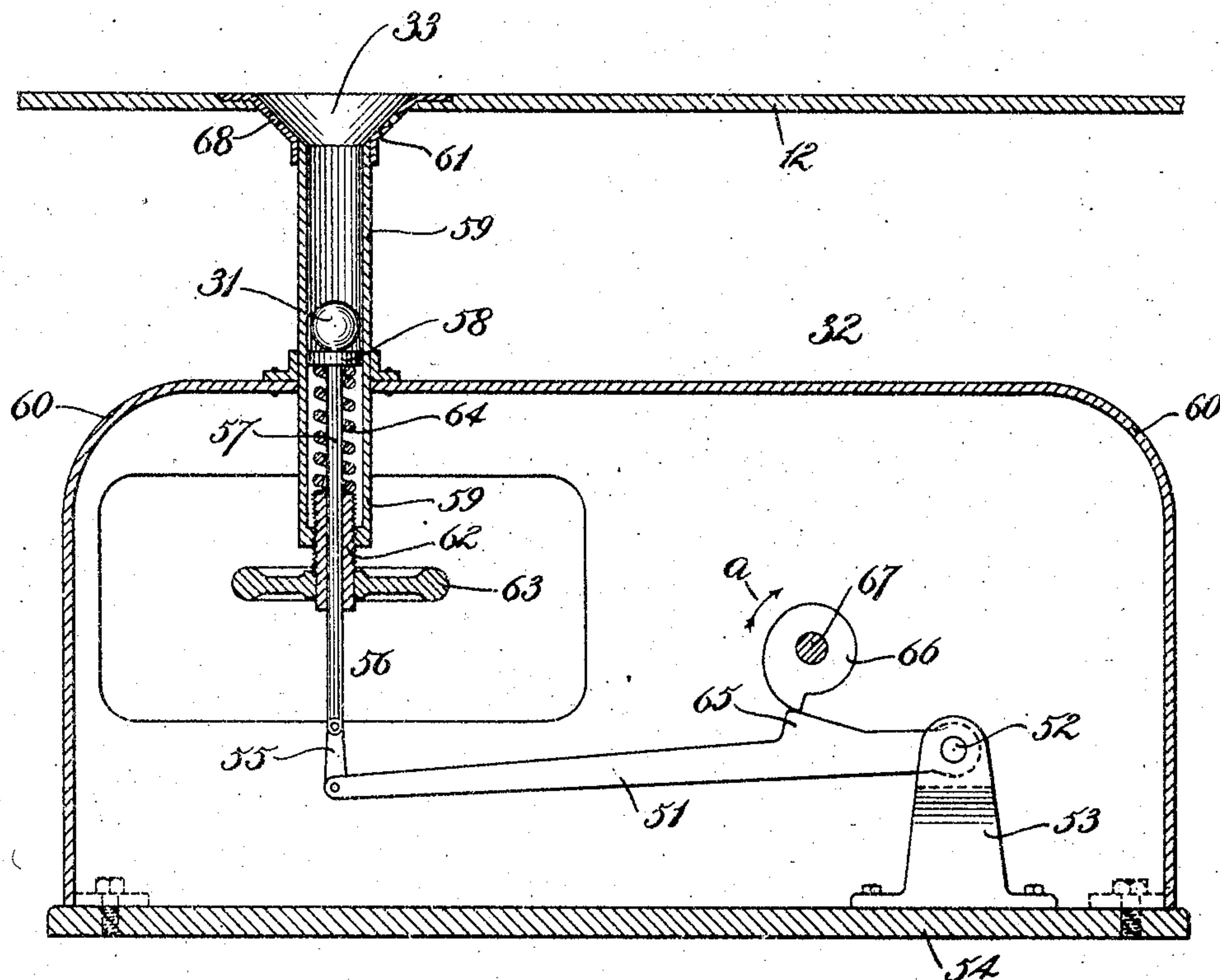


FIG. 9-

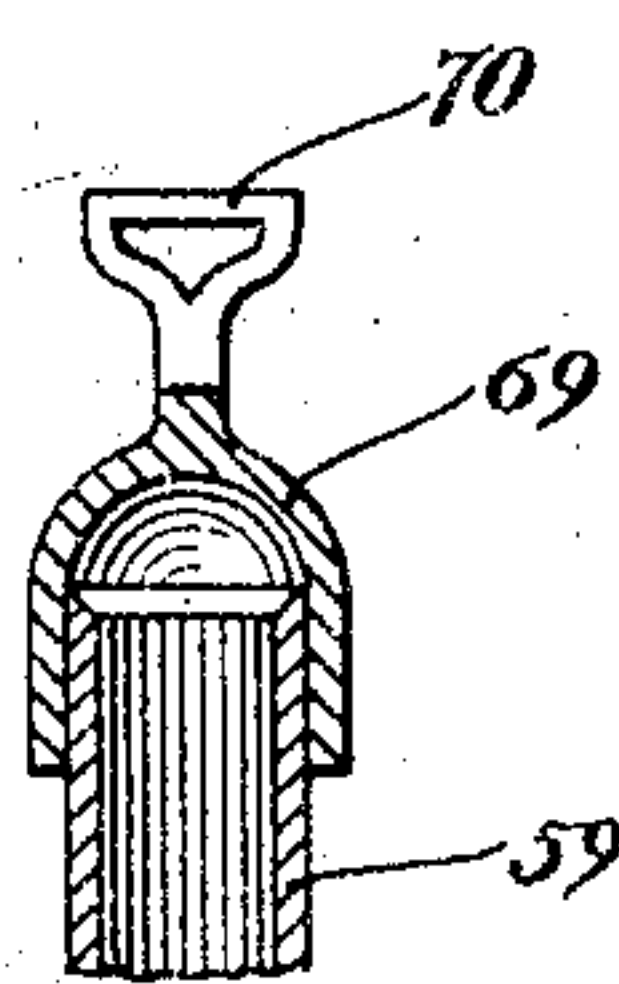


FIG. 10-

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# UNITED STATES PATENT OFFICE.

EDWIN F. PORTER, OF BOSTON, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE TWENTIETH CENTURY AMUSEMENT COMPANY, A CORPORATION OF MASSACHUSETTS.

## BASE-BALL BATting AND REGISTERING DEVICE.

SPECIFICATION forming part of Letters Patent No. 778,266, dated December 27, 1904.

Application filed October 1, 1902. Renewed November 10, 1904. Serial No. 232,137.

*To all whom it may concern:*

Be it known that I, EDWIN F. PORTER, a subject of King Edward VII, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Base-Ball Batting and Registering Devices, (Case B,) of which the following is a specification.

This invention relates to an amusement device in which a ball, such as is generally used in the game of base-ball, is pitched upwardly, as hereinafter described, and the player striking said ball with a bat causes the same to impact against a target, and through mechanism connected with said target a dummy figure, preferably representing the figure of a man, is caused to travel around the four bases of a base-ball diamond, said diamond being represented by lines upon the face of an indicator-board. According to the strength of impact of the ball against the target the figure will travel to a greater or less extent around the diamond—moving, for instance, from the home plate to the first base, to the second base, to the third base, or making a home run, as the case may be. The element of skill enters largely into the game, as the ball being pitched as aforesaid is constantly changing its position, and thus renders it difficult for the player to strike it. Again, if the ball is not struck in such a manner as to drive it directly at the center of the target the distance to which the dummy figure will move will vary according to the distance from the center of the target at which the ball strikes said target. A chamber having a top, an inclined floor, and side walls is provided in front of the target, and if a ball fails to strike the target it will strike one of the walls of the chamber, constituting in the game a "foul."

The invention consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claims thereof.

Referring to the drawings, Figure 1 is a perspective view of my improved base-ball batting and registering device. Fig. 2 is a ver-

tical longitudinal section of the same. Fig. 3 is an enlarged front elevation of the indicator. Fig. 4 is a detail section taken on line 4 4 of Fig. 3. Fig. 5 is an enlarged front elevation of the mechanism by means of which the indicator is set at zero, the rotary shaft being shown in section. Fig. 6 is a detail section taken on line 6 6 of Fig. 5. Fig. 7 is an enlarged front elevation of the stop-pawl mechanism, the rotary shaft being shown in section. Fig. 8 is an enlarged detail of a portion of the indicator-carrier chain and stop. Fig. 9 is an enlarged vertical section, partly in elevation, of the ball-pitching mechanism; and Fig. 10 is a detail view of a cap or cover for a pipe.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 10 is a chamber open at the front and being provided at the rear with a flexible or movable wall 11, constituting a target. Said wall may be constructed of canvas or any material which when struck by a ball will yield.

12 is a floor inclined downwardly from the rear or movable target 11.

13 13 are side walls extending upwardly from the floor 12, and 14 is the ceiling connecting said side and rear walls.

At the front of the chamber 10 and fastened above the ceiling 14 is an indicator 15, which consists of an indicator-board 16, upon which is provided marks indicating the four bases of a base-ball diamond, lines joining said bases and subdivided by cross-lines into distances of one yard. At the lower or home base a sprocket-gear 17 is journaled to said indicator-board, and at each of the other bases is journaled another sprocket-gear or idler 18 18. An endless sprocket-chain 19 extends around said sprocket-gears 17 and 18, one of the links 20 of said chain being formed with a dummy figure 21, preferably representing the figure of a man, fastened thereto. The sprocket-gear 17 is fast to a rotary shaft 22, journaled to rotate in bearings 23 24, supported upon the ceiling of the chamber 10.



At the left-hand end of the shaft 22, Fig. 2, is fastened a pinion bevel-gear 25, which meshes into a bevel-gear 26, fast to a shaft 27, extending transversely of the shaft 22 and having pivoted thereon an arm 28, which extends downwardly from said shaft and is provided at its lower end with weights 29, said weights and arm being adjacent to the movable target 11. The arm 28 is locked to the shaft 27 by a ball-clutch 30 of any desirable construction in such a manner that when said arm is moved in the direction of the arrow, Fig. 2, by a ball striking the target 11 said arm will swing freely upon the shaft 27, and upon its return movement from the position shown in dotted lines to that shown in full lines, Fig. 2, the ball-clutch operates to lock said arm to said shaft 27 and rotating said shaft causes the bevel-gear 26 to rotate, together with the pinion 25, shaft 22, and sprocket-gear 17, thus moving the carrier-chain 19 in the direction of the arrow, Fig. 3, and carrying the dummy figure 21 from the home plate to the first, second, or third base or around the entire diamond to the home plate and if the strength of the play is sufficient beyond said home plate and partly around said diamond the second time.

A ball 31 is pitched upwardly by a suitable mechanism 32, as hereinafter described, said ball being directed upwardly through an opening 33 in the floor 12. To return the dummy figure upon the indicator-board to the home plate after having made a run, as hereinbefore described, a rope 34, preferably in the position shown in Fig. 1, is pulled downwardly. Said rope extends over a pulley 35, journaled upon a bracket 36, fast to the top of the chamber 10, and is fastened to and coiled around a pulley 37, mounted to rotate upon the shaft 22. A pawl 38, pivotally mounted upon the pulley 37, engages and rotates a ratchet 39 in the direction of the arrow *a*, Fig. 5. Said ratchet 39 being fast to the shaft 22, when the rope 34 is pulled in the direction of the arrow *b* in said Fig. 5 the sprocket-gear 17 rotates and causes the carrier-chain to move in the direction of the arrow, Fig. 3, until the projection 40 abuts against a stop-rod 41, as shown in Figs. 2 and 8. When the projection 40 thus encounters the rod 41, the dummy figure 21 will stand at the home plate.

When the rope 34 is pulled, as hereinbefore described, for the purpose of carrying the dummy figure to the home plate, a spiral torsional spring 42 will be wound up, one end of said spring 42 being fast to the pulley 37 and the other end thereof to the bracket 23, and when the rope 34 is released said spring 42 reacting will carry the rope back to its normal position.

The stop-rod 41 is arranged to slide in bearings 43 upon the top of the chamber 10, and when the various parts are in the position

shown in Fig. 2 or in their normal position 65 said stop-rod stands across the path of the projection 40 upon the link 20, as shown in Fig. 8, and the left-hand end of the stop-rod 41, Fig. 2, rests against the arm 28. When said arm is thrown outwardly to the position 70 shown in dotted lines by reason of the impact of the ball 31 against the movable target 11, the stop-rod 41 is carried toward the left, Fig. 2, by a spiral compression-spring 44, one end of which bears against the bearing 43, the other against a collar 45, fast to said stop-rod, the extent to which the spiral spring can move the rod 41 being limited by another collar 46, which when said stop-rod is in its extreme position to the left in said Fig. 2 abuts against the bearing 43. Said stop-rod is thus withdrawn from its position across the path of motion of the projection 40 upon the link 20, and the carrier-chain 19 is then free to be moved in the direction of the arrow, Fig. 3, as hereinbefore described. To prevent the shaft 22 from turning backward or in the opposite direction to the arrow *a*, Fig. 5, I provide a stop-pawl 47, pivoted to the bracket-bearing 24 and engaging a ratchet 48, fast to said shaft 22.

The mechanism 32, by which the ball 31 is pitched or projected upwardly in the air through the opening 33, consists of a lever 51, pivoted at 52 to an ear 53 upon a base-plate 54. Said lever is connected by a link 55 to the lower end of a vertical reciprocating plunger 56, said plunger consisting of a rod 57 and a piston 58. The piston 58 is adapted to reciprocate in a pipe 59, fast to the casing 60, said casing surrounding the pitching mechanism hereinbefore described. The upper end of the pipe 59 is connected by a funnel-shaped guide 61 to the opening 33 in the floor 12. The plunger-rod 57 is guided in a sleeve 62, having screw-threaded engagement with the pipe 59 and being provided with a hand-wheel 63, by means of which said sleeve may be rotated in the pipe 59 and raised or lowered by means of its screw-threaded engagement therewith. A spiral compression-spring 64 encircles the rod 57 within the pipe 59, the upper end of said spring bearing against the under side of the piston 58, the lower end bearing against the top of the sleeve 62. It will be seen that by turning the sleeve 62 by means of the hand-wheel 63 upwardly or downwardly the tension of the spring 64 will be respectively increased or diminished. It will therefore be obvious that the spring 64 moves the plunger upwardly and holds the lever 51 upwardly, so that the projection 65 upon said lever will at all times bear against the periphery of a rotatory cam 66, fast to a shaft 67, said shaft being rotated in any suitable manner in the direction of the arrow *a*, Fig. 9. The funnel-shaped guide 61 is provided with a finger-hole 68, by means



of which it can be removed from the position shown in Fig. 9 and a cap 69 substituted in its place, said cap being provided with a handle 70 for convenience in handling the same and being adapted to rest upon the top of the pipe 59. The object of making the funnel-shaped guide 61 removable and placing the cap 69 upon the top of the pipe 59 after removing the funnel-shaped guide is to prevent water in case of rain-storms from being guided down the inclined floor and through the opening 33 into the pipe 59, thus rusting and interfering with the operation of the plunger and its actuating mechanism.

The operation of my improved base-ball batting and registering device as a whole is as follows: The plunger 56 is given a constant vertical reciprocatory motion by means of the lever 51 and cam 66. The ball 31 is pitched or projected upwardly by the plunger 56 through the opening 33 in the floor 12. The player stands in the position illustrated in Fig. 1 and strikes at the ball 31 with an ordinary base-ball bat 49. As the game is played each player has three strikes at the ball. If the ball is struck so as to drive it against the movable target or screen 11, said target will be moved toward the left, Fig. 2, thus forcing the arm 28 and weight 29 in the direction of the arrow in said figure toward the position indicated in dotted lines therein. The stop-rod 41 will be moved toward the left by the spring 44 until the collar 46 abuts against the bearing 43, thus removing said stop-rod from the path of the projection 40 upon the link 20 of the carrier-chain 19. As the arm 28 descends toward the position shown in Fig. 2 in full lines the clutch 30 will lock said arm to the shaft 27 and rotate said shaft, together with the bevel-gear 26, thus imparting motion through the pinion 25 and shaft 22 to the sprocket-gear 17 and moving the chain 19, together with the dummy figure 21, fast thereto, in the direction of the arrow, Fig. 3. According to the strength and accuracy with which the ball is struck the dummy figure will be moved to a greater or less extent around the diamond. The ball will rebound from the target and rolling down the inclined floor 12 will be guided by the converging guides 50, fast to said door 12, back toward the opening 33 and upon falling into said opening will be again pitched upwardly by the mechanism 32, as hereinbefore described. The rope 34 is then pulled downwardly by an attendant, setting the link 20 with the figure "21" at the home plate, as hereinbefore described, by reason of the projection 40 upon the link 20 coming in contact with the stop-rod 41, said stop-rod having been returned to a position across the path of motion of said projection 40 by the return of the arm 28 to the position shown in full lines, Fig. 2.

In the playing of the game if the player strikes the ball so that the same instead of impinging against the target 11 impinges against the side wall 13 or the ceiling 14 said play constitutes a "foul."

It is evident that different forms of mechanism or devices may be used for pitching the ball upwardly in lieu of the plunger and cam-and-lever mechanism hereinbefore described—as, for instance, a blast of air may be forced through the pipe 59 by means of a blower connected to the lower end of said pipe, or the ball may be pitched in the air by the batter by hand without any mechanism—without departing from the spirit of my invention, and in another application for "Base-ball batting and registering device," filed in the Office of even date herewith, executed on the 28th day of July and the 22d day of September, 1902, I have illustrated and described another form of mechanism for pitching the ball and for actuating the dummy figure.

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

1. In a device of the character described, a target of flexible sheet material, an indicator, a pivotally-supported arm adjacent to and adapted to be directly operated by contact with said target, and mechanism operatively connecting said arm and indicator.

2. In a device of the character described, a movable target, an indicator, a pivotally-supported arm adjacent to and adapted to be directly operated by contact with said target, mechanism operatively connecting said arm and indicator, and a stop actuated by said arm to engage said indicator.

3. In a device of the character described, an indicator-board provided with marks indicating the four bases of a base-ball diamond, a sprocket-gear journaled upon said indicator-board at one of said bases, an idler journaled upon said indicator at each of the other of said bases, an endless chain extending around said sprocket-gear and idlers, a dummy fast to said chain, and a stop actuated by said arm to engage said endless chain.

4. In a device of the character described, a movable target, an indicator, a rotary shaft operatively connected to said indicator, a second shaft rotatably connected to said rotary shaft, an arm pivoted upon said second shaft and depending therefrom in a position adjacent to said movable target, and a clutch to lock said arm to said second shaft.

5. In a device of the character described, a target of flexible sheet material, an indicator, mechanism operatively connecting said indicator and target, a plunger, means to impart a reciprocatory motion to said plunger, and means to guide a ball to said plunger for the purpose specified.

6. In a device of the character described, a



target of flexible sheet material, an indicator, mechanism operatively connecting said indicator and target, a plunger, a lever operatively connected to said plunger, mechanism to rock 5 said lever and impart a reciprocatory motion to said plunger, and means to guide a ball to said plunger for the purpose specified.

7. In a device of the character described, a target of flexible sheet material, an indicator, 10 mechanism operatively connecting said indicator and target, a plunger, a lever operatively connected to said plunger, a spring operating to move said plunger and lever in one direction, and a cam operatively connected to move 15 said plunger and lever in the opposite direction.

8. In a device of the character described, a target of flexible sheet material, an indicator, mechanism operatively connecting said indicator and target, a plunger, a lever operatively 20 connected to said plunger, a spring operating to move said plunger and lever in one direction, means to adjust the tension on said spring, and a cam operatively connected to 25 move said plunger and lever in the opposite direction.

9. In a device of the character described, a target of flexible sheet material, an indicator, mechanism connecting said indicator and tar-

get, a chamber having a downwardly-inclined 30 floor adjacent to and in front of said target, said floor provided with an opening, guides fast to said floor and converging toward each other, a removable funnel-shaped guide located in said opening, a pipe fast to the lower 35 end of said funnel-shaped guide, and a plunger adapted to reciprocate in said pipe for the purpose specified.

10. In a device of the character described, a target of flexible sheet material, an indicator, 40 mechanism connecting said indicator and target, a chamber having a downwardly-inclined floor adjacent to and in front of said target, said target constituting the rear wall of said chamber, said floor provided with an opening, 45 guides fast to said floor and converging toward each other, a removable funnel-shaped guide located in said opening, a pipe fast to the lower end of said funnel-shaped guide, and a plunger adapted to reciprocate in said 50 pipe for the purpose specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

EDWIN F. PORTER.

Witnesses:

CHARLES S. GOODING,  
ANNIE J. DAILEY.