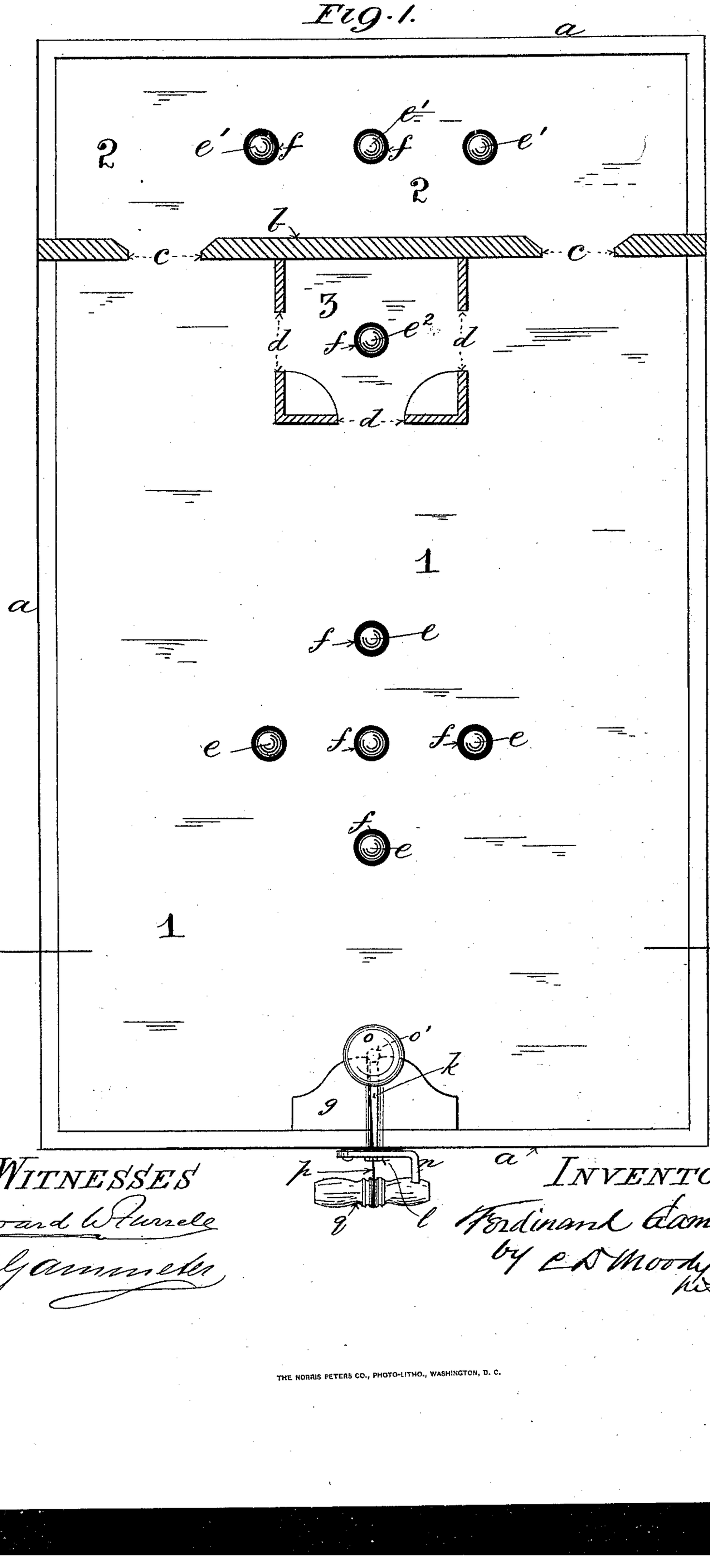
(No Model.) 3 Sheets—Sheet 1.

F. GAMMETER.

GAME APPARATUS.

No. 433,676. Patented Aug. 5, 1890.

Fig. 1.



WITNESSES
Edward Wunele
A. Gammeter

INVENTOR
Ferdinand Gammeter
by C. D. Moody
his atty

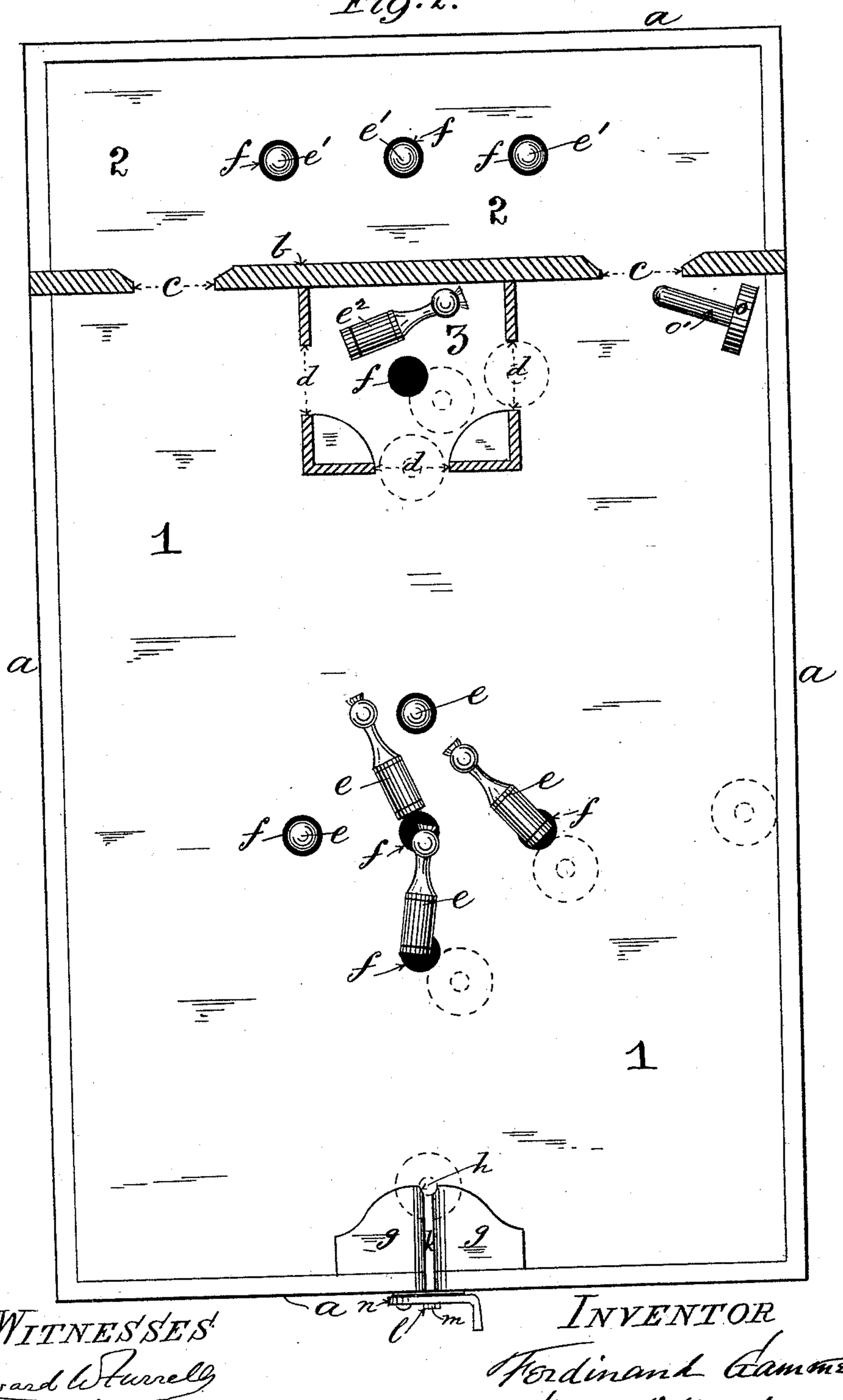
(No Model.) 3 Sheets—Sheet 2.

F. GAMMETER.

GAME APPARATUS.

No. 433,676. Patented Aug. 5, 1890.

Fig. 2.



WITNESSES:
Edward Stanley
Alyammeter

INVENTOR
Ferdinand Gammeter
by C. D. Moody
his atty

(No Model.)

3 Sheets—Sheet 3.

F. GAMMETER.

GAME APPARATUS.

No. 433,676. Patented Aug. 5, 1890.

Fig. 3.

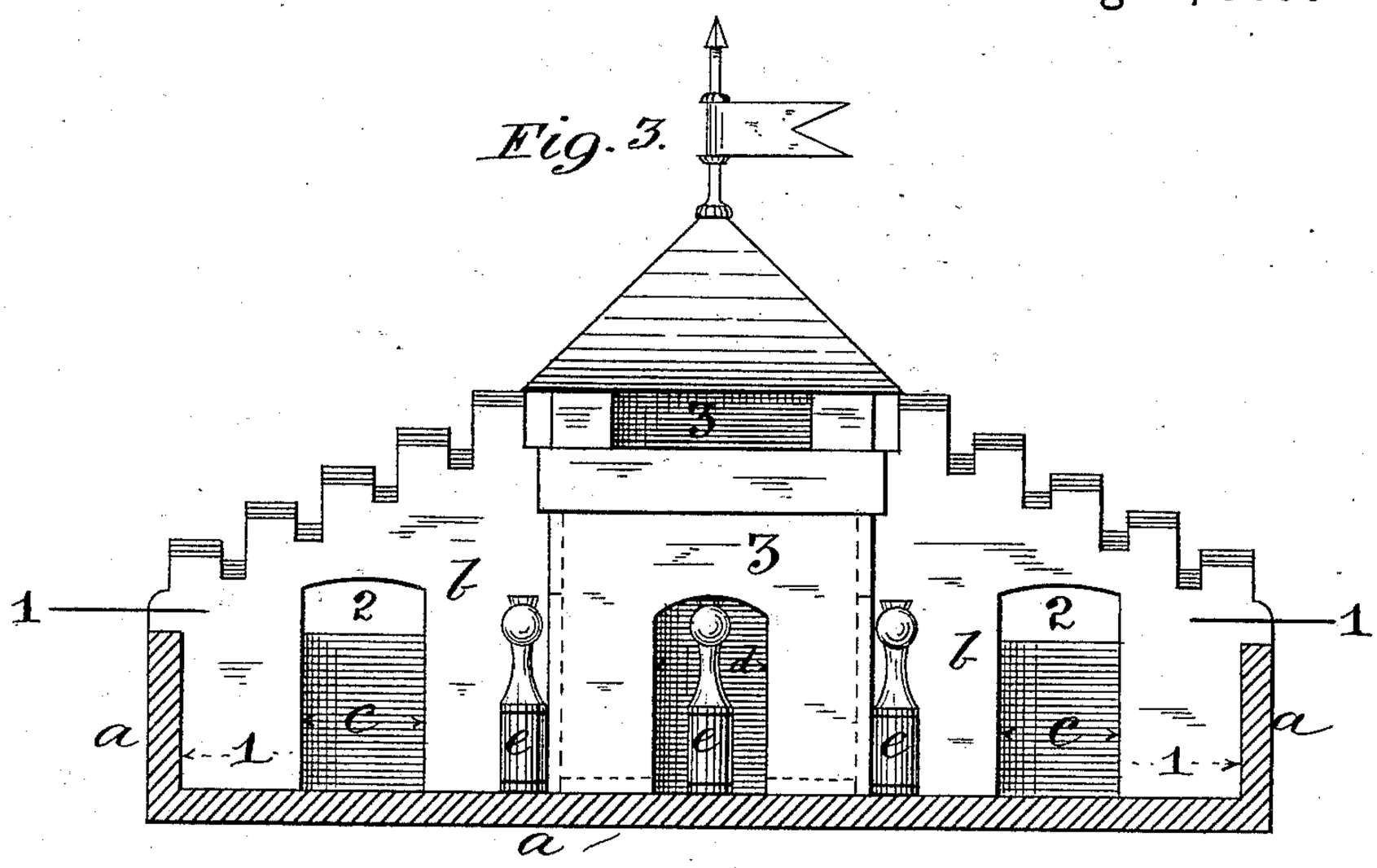


Fig. 4.

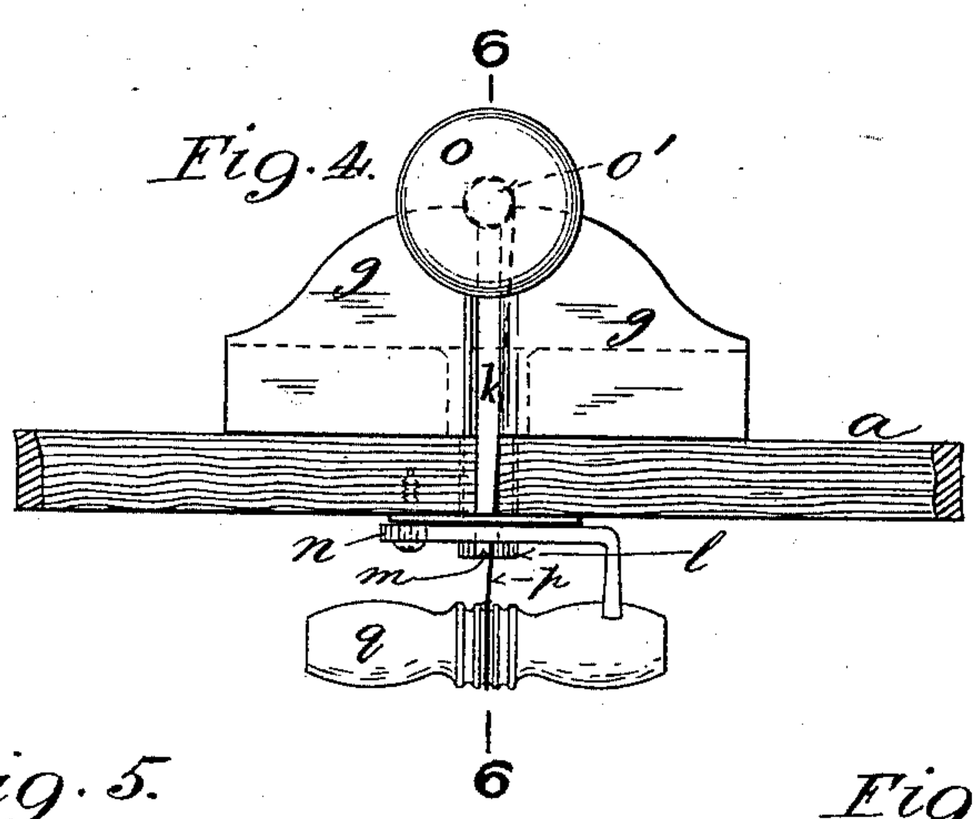


Fig. 5.

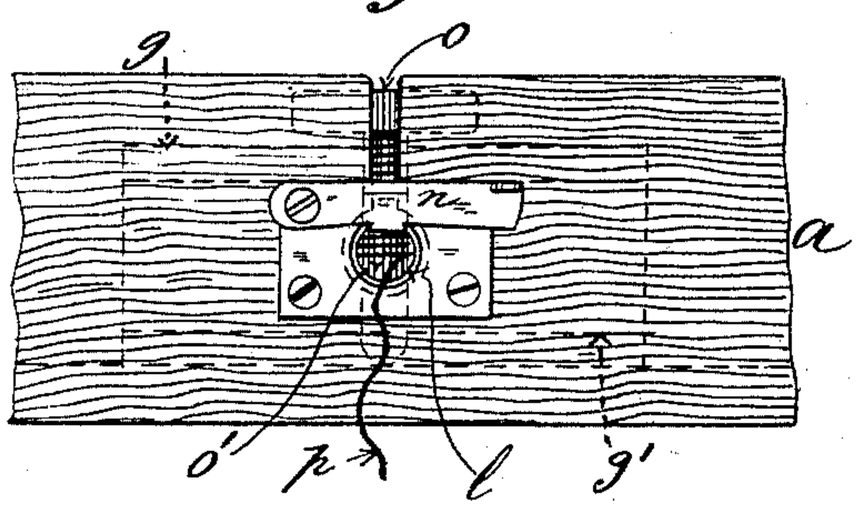
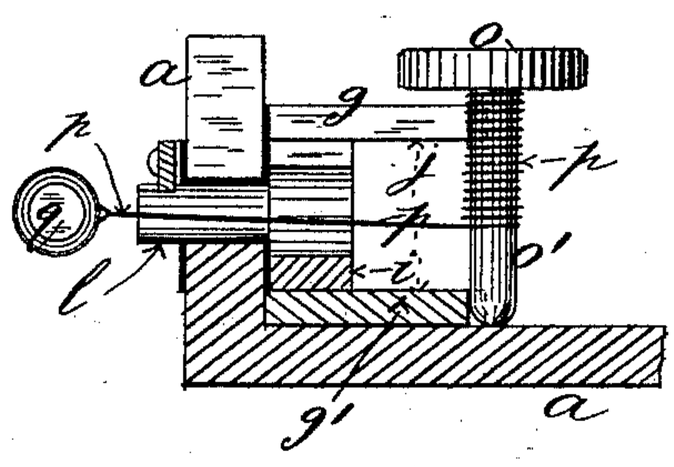


Fig. 6.



WITNESSES
Edward Sturele
A Gammeter

INVENTOR
Ferdinand Gammeter
by C D Moody his atty

UNITED STATES PATENT OFFICE.

FERDINAND GAMMETER, OF ST. LOUIS, MISSOURI.

GAME APPARATUS.

SPECIFICATION forming part of Letters Patent No. 433,676, dated August 5, 1890.

Application filed May 9, 1890. Serial No. 351,179. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND GAMMETER, a citizen of the United States, residing at the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Game Apparatus, of which the following is a full, clear, and exact description.

My invention relates to an improvement in that class of game apparatus in which pins are knocked down by a moving object; and it consists in a box or tray having compartments in which the pins are variously arranged and adapted to be knocked down by means of a top which is adjusted for spinning against a bracket or abutment fixed in the box or tray, all substantially as hereinafter more particularly described and claimed, aided by the annexed drawings, making part of this specification, and in which—

Figure 1 represents a plan in section, on line 1 1 in Fig. 3, of my improved game apparatus with the top adjusted for spinning; Fig. 2, a similar view thereof after the top has been spun and released; Fig. 3, a transverse section on line 3 3 in Fig. 1; Fig. 4, a detail plan, to an enlarged scale, of the bracket or abutment forming part of my invention, with the top in position against the same; Fig. 5, a front view thereof, omitting the handle seen in Fig. 4; and Fig. 6, a transverse section on line 6 6 in Fig. 4.

Like letters of reference denote like parts in all the figures.

a represents a box or tray, which may be rectangular, square, oval, or of any other desired configuration, but preferably rectangular, having four upright sides, as shown.

Across the box or tray *a*, preferably adjacent and parallel to its rear end, is fixed an upright division-wall *b*, which may be ornamented according to fancy, and divides the tray *a* into two compartments 1 2, which communicate with each other by, preferably, two openings *c*, formed at a suitable distance apart, through the division-wall *b* on a level with and extending upward from the tray *a*.

Within the compartment 1, adjacent to the division-wall *b* and midway between the two openings *c*, is a third compartment 3, which is preferably square, but may be of any other desirable shape. The compartment 3 communicates with the compartment 1 by three openings *d*, which are formed, in a similar manner to the openings *c*, centrally through the three sides of the compartment 3, respectively opposite to the front end and adjacent sides of the box or tray *a*. On the latter, within the compartment 1, are placed the upright movable pins *e*, Figs. 1 and 3, which may be of any desired number and arrangement, but preferably five, located on spots or marks *f* corresponding to the corners and center of a square or diamond at the middle portion, or thereabouts, of the compartment 1.

Within the compartment 2 are arranged, say, three pins *e'*, in line with each other along the middle of the compartment 2 (transversely to the box or tray *a*) between the openings *c* in the division-wall *b*. Centrally within the compartment 3 is placed, say, one pin e^2

Against the front upright end of the box or tray *a*, within the compartment 1, is fixed an upright bracket or abutment, which may be of any desired construction, but preferably composed of two parallel and corresponding top and bottom plates *g g'*, which project horizontally from the said end of the box or tray *a* to a suitable distance within the latter, their extreme projecting edges which face the front side of the compartment 3 having vertical concave grooves *h*. The plates *g g'* are maintained at a suitable distance apart, preferably by a distance-piece *i*, which extends only part way toward the grooves *h*, so as to leave a space *j* thereat between the plates *g g'*, for the purpose hereinafter referred to.

Vertically through the top plate *g*, and for a suitable depth into the distance-piece *i* and front upright end of the box or tray *a*, is formed a slot or cleft *k*, which extends from the outside of the said end of the box or tray *a* to the groove *h* of the top plate *g*, and the space *j* beneath the center line of the cleft *k* being in line with the center of the grooves *h* and longitudinal center of the box or tray *a*.

Below the slot *k*, within the front upright end of the box or tray *a*, is fixed a tube *l*, having through its upper portion a longitudinal slot *m*, which is coincident with the slot *k*, the tube *l* being open at its ends and constituting practically an enlarged continuation of the slot *k*. The tube *l* projects somewhat beyond the outside of the said end of the box or tray *a*, and is provided thereat

with a latch *n*, which is hinged to the box or tray *a*, and allowed to fall across or be raised from the slot *m*, as desired.

I use in combination with the bracket or abutment above described a spinning-top, which preferably consists of a circular disk *o*, having a central circular shank or stem *o'*, around which may be wound, but not fixed a string or cord *p*, provided at its free end with a handle *q*.

In operation, the latch *n* being first raised clear of the slot *m* of the tube *l*, and the string *p* wound around the shank *o'* of the top *o o'*, the latter is placed with its disk *o* uppermost and its shank *o'* in an upright position against the grooves *h* of the plates *g g'*, with the free end of the shank *o'* resting upon the tray *a*. The free end portion of the string *p* is then passed through the slot *k* into the tube *l*, so that the handle *q* is on the outside of the box or tray *a*, and the latch *n* dropped across the slot *m*, which thereby prevents the rising of the string *p* from the tube *l*. The top *o o'* being then held sufficiently only to steady it against the abutment, is spun by pulling on the string *p* by its handle *q* with more or less force outward from the tray *a* until the string *p* leaves the top *o o'*, when the latter is thereby released and projected by the centrifugal force imparted thereto along the tray *a* in various directions—as, for example, in the direction indicated by the broken circles—so as to knock down three of the pins *e* in the compartment 1, and from the latter entering compartment 3 through the front opening *d*, so as to knock down pin e^2, when it passes out through the side opening *d*, and finally falls to rest in a corner of the compartment 1 adjacent to the division-wall *b*, and so on, with different results, sometimes entering the compartment 2 by one of the openings *c* and therein knocking down one or more of the pins *e'* before it falls to rest. If desired, the pins *e e' e²* may be rated and the spots *f* correspondingly numbered at different values according to their respective locations and chances of being knocked down by the top. The string *p* may be wound around the shank *o'* of the top *o o'* to the right or left hand, freedom therefor being allowed by the space *j* beneath the top plate *g*.

I claim as my invention—

The combination of a box or tray containing pins to be knocked down and a bracket or abutment composed preferably of plates *g g'*, having grooves *h* and distance-piece *i*, the said abutment being fixed against the front upright end of the tray and having a slot *k* in line with the longitudinal center of the tray, a tube *l*, fixed in the said end of the tray and having a slot *m* communicating with the slot *k*, and a latch *n*, with a spinning-top having the free end portion of its string *p* located within the tube *l* and provided with a handle *q* on the outside of the tray, substantially as shown, and for the purpose described.

Witness my hand this 7th day of May, 1890.

FERDINAND GAMMETER.

Witnesses:
C. D. MOODY,
A. GAMMETER.