

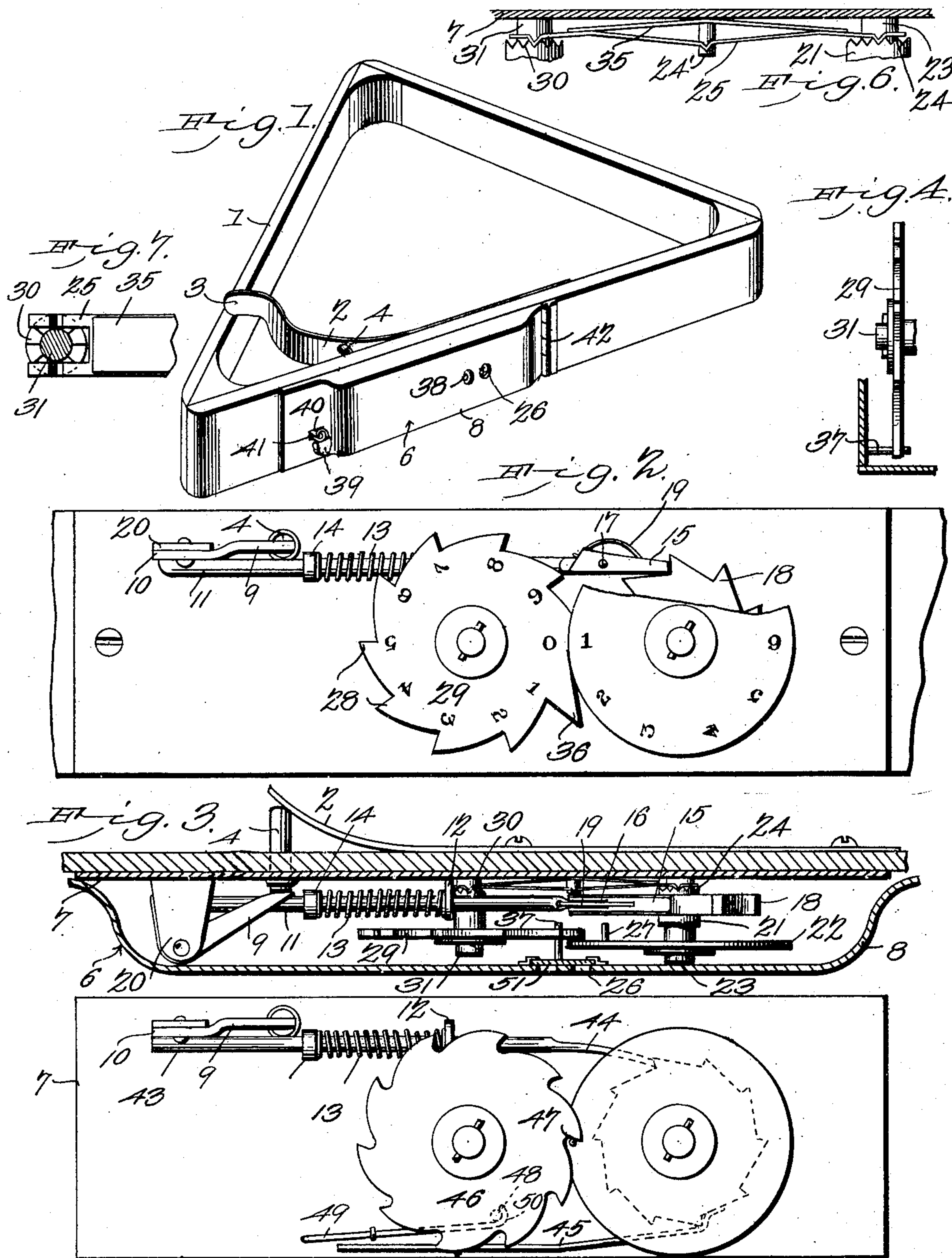
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E. J. WELLS.
POOL BALL REGISTERING TRIANGLE.

APPLICATION FILED JUNE 24, 1902.

NO MODEL.



Witnesses
E. J. Wells, Inventor,
J. F. Riley
by
C. A. Snow & Co.
Attorneys

UNITED STATES PATENT OFFICE.

ELMER JONATHAN WELLS, OF NASHUA, IOWA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE POOL GAME REGISTER COMPANY, OF WATERLOO, IOWA.

POOL-BALL-REGISTERING TRIANGLE.

SPECIFICATION forming part of Letters Patent No. 736,805, dated August 18, 1903.

Application filed June 24, 1902. Serial No. 113,001. (No model.)

To all whom it may concern:

Be it known that I, ELMER JONATHAN WELLS, a citizen of the United States, residing at Nashua, in the county of Chickasaw and State of Iowa, have invented a new and useful Pool-Ball-Registering Triangle, of which the following is a specification.

The invention relates to improvements in pool-ball-registering triangles.

The object of the present invention is to improve the construction of pool-ball-registering triangles and to provide an exceedingly simple and inexpensive construction adapted to register the number of games played and capable after a predetermined number of games have been registered of preventing the triangle from being again used for setting up the balls until the registering mechanism is released and arranged for operation.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a pool-ball-registering triangle constructed in accordance with this invention. Fig. 2 is an enlarged elevation of the registering mechanism, the front of the casing being removed and the units-dial being partly broken away. Fig. 3 is a horizontal sectional view of the same. Fig. 4 is a detail view illustrating the construction for locking the registering mechanism after a predetermined number of games have been registered. Fig. 5 is an elevation similar to Fig. 2, illustrating a modification of the invention. Fig. 6 is an enlarged detail sectional view illustrating the construction of the springs for holding the dials against accidental movement. Fig. 7 is a detail view of one end of the springs and one of the ratchet-hubs.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a triangular frame designed to be used for setting up the balls of a pool-table, and arranged within the said frame is a

yieldable actuating device or member 2, consisting of a spring-plate secured at one end or portion to the inner face of one side of the triangular frame and having its other portion normally projecting into the area or space enclosed by the frame, and the said plate or member is provided at its free end with an extension or thumb piece 3, lying above the plane of the triangular frame and adapted to be readily engaged by the thumb of the operator for pressing the resilient plate or member against the adjacent side of the triangular frame to arrange it out of the way of the balls when it is desired to set the same up for playing a game.

A transversely-disposed reciprocating pin or plunger 4 is arranged in the path of the resilient actuating device, and it extends through a perforation of the adjacent side of the triangular frame, and it projects into a casing 6, which contains mechanism for registering the number of games played. The casing consists of a back 7 and a hinged front 8, the back being provided with a perforation registering with the perforation of the side of the frame and adapted to permit the reciprocating pin or plunger to project into the casing when the resilient actuating device is operated. The pin or plunger 4 engages one arm 9 of the bell-crank lever, which has its other arm 10 pivoted to the outer end of a reciprocating spring-actuated rod 11, and the latter, which is mounted in a suitable guide 12, is engaged by a coiled spring 13, interposed between the guide 12 and a collar 14. The spring 13 is adapted to throw the rod 11 backward or outward, and it maintains the reciprocating pin in an extended position. The rod 11 is provided at its inner end with a pivoted pawl 15, having a slot or bifurcation 16 to receive the inner end of the rod 11 and secured to the same by a suitable pivot 17. The pivot is located between the ends of the pawl, and the engaging or outer portion of the same is arranged to rotate a ratchet-wheel 18 and is engaged by a curved spring 19, which holds the engaging portion of the pawl or dog against the ratchet-wheel, but

which permits the same to be thrown outward to avoid breaking the mechanism should an attempt be made to force the actuating device inward when the registering mechanism 5 has reached the limit of its movement and is locked out of operation. The bell-crank lever is fulcrumed at its angle on a suitable support 20, which is secured to the casing and which is arranged within the same, and when 10 the transverse plunger is moved into the casing the bell-crank lever will be oscillated and the rod 11 reciprocated. The spring 19, which is approximately semicircular, has one end secured to the dog and its other end bears 15 against the rod 11 and is free.

The reciprocating rod or bar, which is shown above the registering mechanism in Fig. 2 of the drawings, may, if desired, be reversed and be located below the same, and the ratchet-wheel 18 is mounted on the hub 21 of a units-dial 22, which is arranged on a shaft 23. The ratchet-wheel, which is suitably fixed to the hub of the units-dial, is also provided at the inner end of its hub with a series of notches 25 forming ratchet-teeth 24, which are engaged by one end of a spring 25, whereby the ratchet-wheel 18 and the units-disk are held against accidental rotation and are prevented from moving backward when the reciprocating rod 30 11 is thrown outward by the coiled spring. The units-dial is provided with a series of numerals ranging from "0" to "9," and these are adapted to be exposed successively through an aperture 26 of the front of the casing. The 35 dial 22 is provided with a pin or projection 27, extending from the inner face of the said dial and adapted to engage teeth 28 of a tens-dial 29, whereby the latter will be actuated the distance of one tooth at each rotation of the 40 units-dial. The tens-dial is provided with numerals ranging from "0" to "9," and the registering mechanism is locked out of operation by the means hereinafter described after the tens-dial has made nine successive 45 movements and the units-dial has made nine complete revolutions and has moved around until the numeral "9" is exposed at the tenth revolution. By this arrangement the registering mechanism is adapted to register 50 ninety-nine games; but it will be readily apparent that any number of dials may be provided to produce a registering mechanism of the desired capacity. The hub of the tens-dial is provided at its inner end with a series 55 of notches 30, and it is mounted on a shaft 31, the dials being retained on the shafts by suitable pins or keys, as clearly shown in Fig. 2. The teeth 30 are engaged by the spring 25, which has its ends bifurcated to 60 receive the inner portions of the shafts, and the sides of the bifurcation are crimped or bent at 31 to form projecting teeth for engaging the end teeth of the hubs of the ratchet-wheel 18 and the tens-dial 29. The spring 65 25 is provided with a central perforation and is arranged on a pin or stud 24', and it is en-

gaged by a spring 35, interposed between the back of the casing and the spring 25. The said spring 35 is provided with a central perforation to receive the projecting pin or stud 24'. 70

The tens-dial has one of its teeth elongated to provide an extension or arm 36, which is adapted to be engaged by a pin or projection 37, extending inward from the hinged front of the casing and arranged within the path of 75 the tooth 36 and adapted to be engaged by the same when the numeral "9" of the tens-dial is exposed at the aperture 38 of the front of the casing. The front of the casing is secured in its closed position by means of a 80 padlock 39, and it is provided with a slot 40 to permit a staple 41 to extend through it to receive the shackle of the padlock. When it is desired to release the registering mechanism, the front of the casing, which is hinged 85 at one end at 42, is unlocked, and the projection or pin 37 is swung outward away from the tens-dial, and the latter is rotated the distance of one tooth to carry the elongated tooth beyond the pin or projection and to arrange 90 the dial with its cipher exposed at the aperture 38. The units-dial is also rotated to arrange the cipher at the aperture 26, and the casing is then closed. The registering mechanism is then adapted to be operated 95 until it again registers ninety-nine games or any other desired number.

In Fig. 5 of the accompanying drawings is illustrated a slight modification of the invention in which the reciprocating rod 43 is provided with a resilient integral engaging portion 44 for actuating the ratchet-wheel of the units-dial, and the said ratchet-wheel is also engaged by one end of a spring 45 to prevent the units-dial from accidentally rotating and 105 from being drawn backward by the spring-actuated rod 43. The tens-dial 46 is provided with teeth of equal length and is actuated by a pin or projection 47, and in order to prevent the registering mechanism from being 110 operated after it has reached the limit of its movement the tens-dial is provided with a pin or projection 48, which is engaged by a spring 49, secured to the casing and terminating in a hook 50. The spring is adapted 115 to be readily disengaged from the dial to permit the registering mechanism to be set for operation when the casing is open.

The front of the casing is designed to be provided at the apertures with a plate 51, of 120 glass or other suitable material, to exclude dust from the mechanism.

It will be seen that the registering mechanism is simple and comparatively inexpensive in construction, that it is positive, reliable, and automatic in its operation, and that 125 after the mechanism has registered a predetermined number of games it will be locked out of operation.

Various changes in the form, proportion, 130 size, and the minor details of construction within the scope of the appended claims may be

resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

5 1. A device of the class described comprising an open frame for setting up movable playing-pieces, an actuating device extending into the space inclosed by the frame, a transverse plunger extending through one
10 side of the frame and arranged to be actuated by the said device, a bell-crank lever fulcrumed at its angle and having one arm arranged to be engaged by the plunger, a rod operated by the other arm of the plunger and
15 registering mechanism actuated by the rod, substantially as described.

2. A device of the class described comprising an open frame for setting up movable playing-pieces, an actuating device extending
20 into the space inclosed by the frame, a plunger disposed transversely of one side of the frame and arranged to be operated by the actuating device, a spring-actuated rod, a lever connecting the plunger and the rod, a
25 ratchet-wheel arranged to be operated by the plunger, and a dial carried by the ratchet-wheel, substantially as described.

3. A device of the class described comprising an open frame for setting up movable
30 playing-pieces, an actuating device extending into the space inclosed by the frame, a transverse plunger operated by the actuating device and projecting through one side of the frame, a reciprocating rod, a lever operated
35 by the plunger and arranged to actuate the rod, a ratchet-wheel arranged to be engaged by the reciprocating rod, a dial carried by the ratchet-wheel, and means for locking the dial, substantially as described.

40 4. A device of the class described comprising a frame, an actuating device extending into the frame, a reciprocating rod having a pivoted dog extending longitudinally of the rod, a ratchet-wheel arranged to be engaged
45 by the dog, means operated by the actuating device for reciprocating the said rod, a spring engaging the rod and the dog, and a dial operated by the ratchet-wheel, substantially as described.

50 5. A device of the class described comprising a frame, an actuating device extending into the space inclosed by the same, a reciprocating rod, a dog pivotally connected with the rod and disposed longitudinally of the
55 same, means operated by the actuating device for reciprocating the rod, a ratchet-wheel engaged by the dog, and a dial operated by the ratchet-wheel, substantially as described.

60 6. A device of the class described comprising a frame, an actuating device extending into the frame, a reciprocating rod, means operated by the actuating device for reciprocating the rod, a dog pivoted to the rod and extending
65 longitudinally of the same, a spring engaging the dog and the rod, a dial provided with a ratchet-wheel engaged by the dog, and

means for locking the dial against movement, substantially as described.

7. In a device of the class described, the combination of a ratchet-wheel, a reciprocating rod, a dog pivoted to the rod and extending longitudinally of the same and engaging the ratchet-wheel, a spring engaging the dog and the rod, and means for locking the ratchet-wheel against movement, substantially
75 as described.

8. In a device of the class described, the combination of a frame, registering mechanism, a casing having a movable portion arranged to open to afford access to the device
80 and provided with a stop arranged to lock the registering mechanism against movement and carried out of such position by the opening movement of the said portion, and means
85 for securing the movable portion of the casing in its closed position, substantially as described.

9. In a device of the class described, the combination of a frame, registering mechanism, a protecting-casing having a hinged
90 front provided with a stop arranged to lock the registering mechanism against movement, and means for securing the hinged front of the casing in its closed position, substantially as described.

10. In a device of the class described, the combination of a frame, a protecting-casing having a movable portion, registering mechanism arranged within the casing and having a movable member, a stop mounted on
100 the movable portion of the casing and arranged in the path of the movable member of the registering mechanism to lock the latter out of operation, and means for operating the registering mechanism, substantially
105 as described.

11. In a device of the class described the combination of an open frame for setting up movable playing-pieces, an actuating device extending into the space inclosed by the
110 frame, a transverse plunger arranged in the path of the actuating device, a longitudinally-disposed spring-actuated rod connected with and operated by the plunger, a units-dial provided with a ratchet-wheel and actuated by
115 the said rod, a tens-dial operated by the units-dial and having an extended portion or tooth, a yieldable device engaging the ratchet-wheel and the tens-dial, and a removable stop located in the path of the extended portion or
120 tooth of the tens-dial for locking the registering mechanism against movement at the end of a predetermined number of games, substantially as described.

12. In a device of the class described, the
125 combination of an open frame for setting up movable playing-pieces, an actuating device extending into the space inclosed by the frame, a casing mounted on the exterior of the frame, a transverse plunger extending
130 into the casing and through one side of the frame and arranged in the path of the actu-

ating device, a bell-crank lever mounted within the casing and having one of its arms arranged to be engaged by the plunger, a spring-actuated rod operated by the other
5 arm of the bell-crank lever, a units-dial, a ratchet-wheel connected with the units-dial, a tens-dial operated by the units-dial, and means for locking the registering mechanism against movement at the end of a predeter-

mined number of games, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ELMER JONATHAN WELLS.

Witnesses:

H. M. WALLESER,
O. E. DYRE.