

No. 682,990.

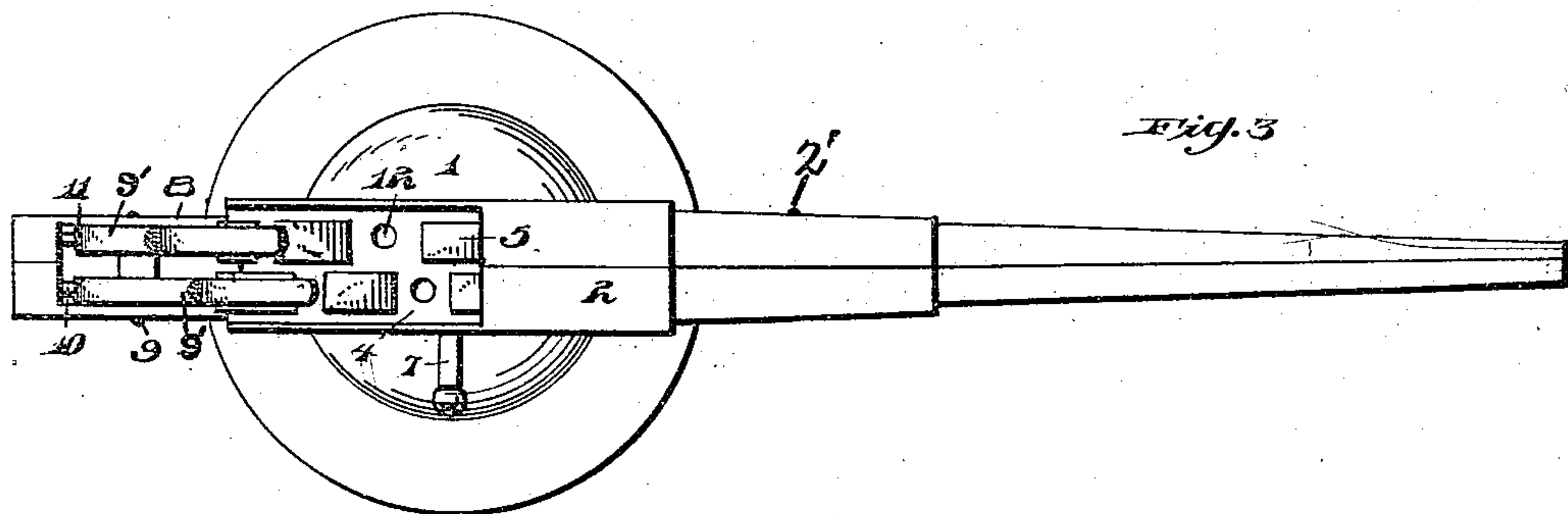
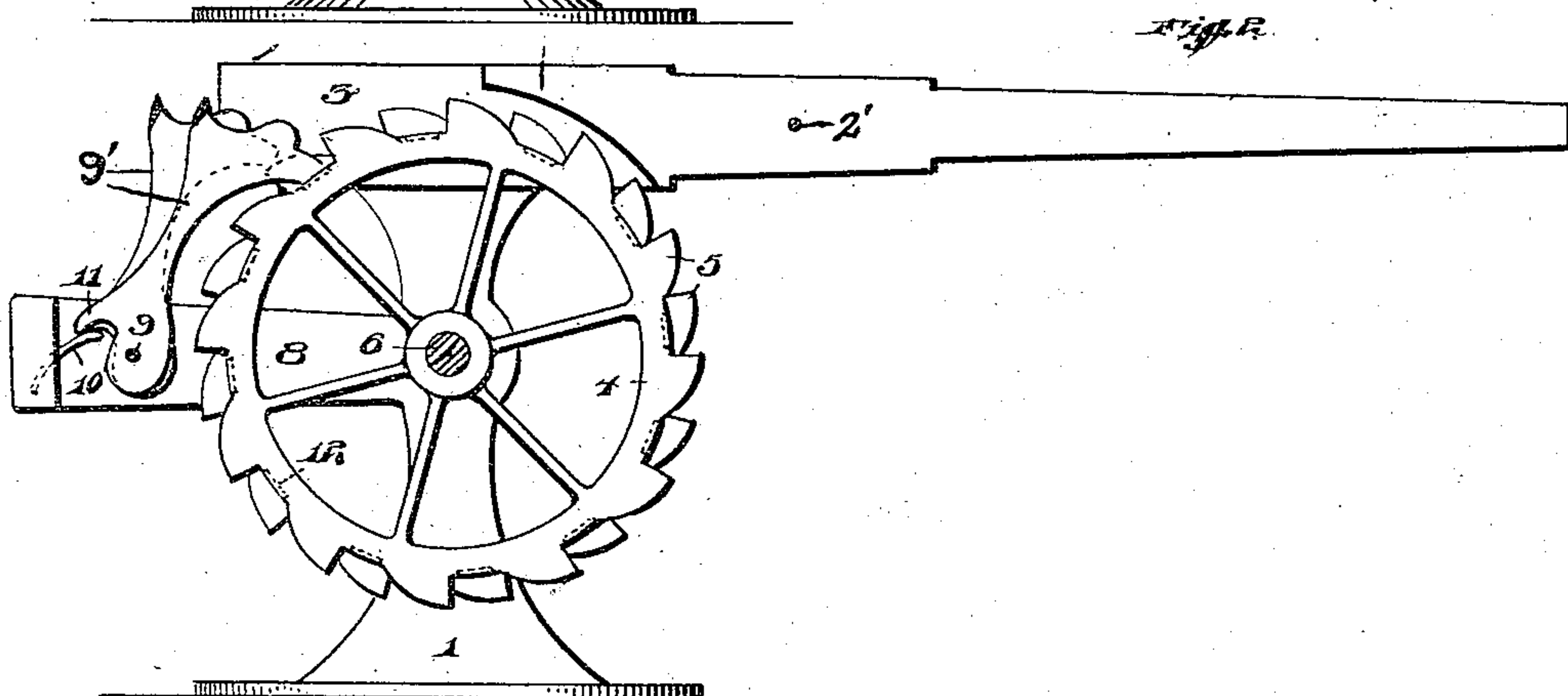
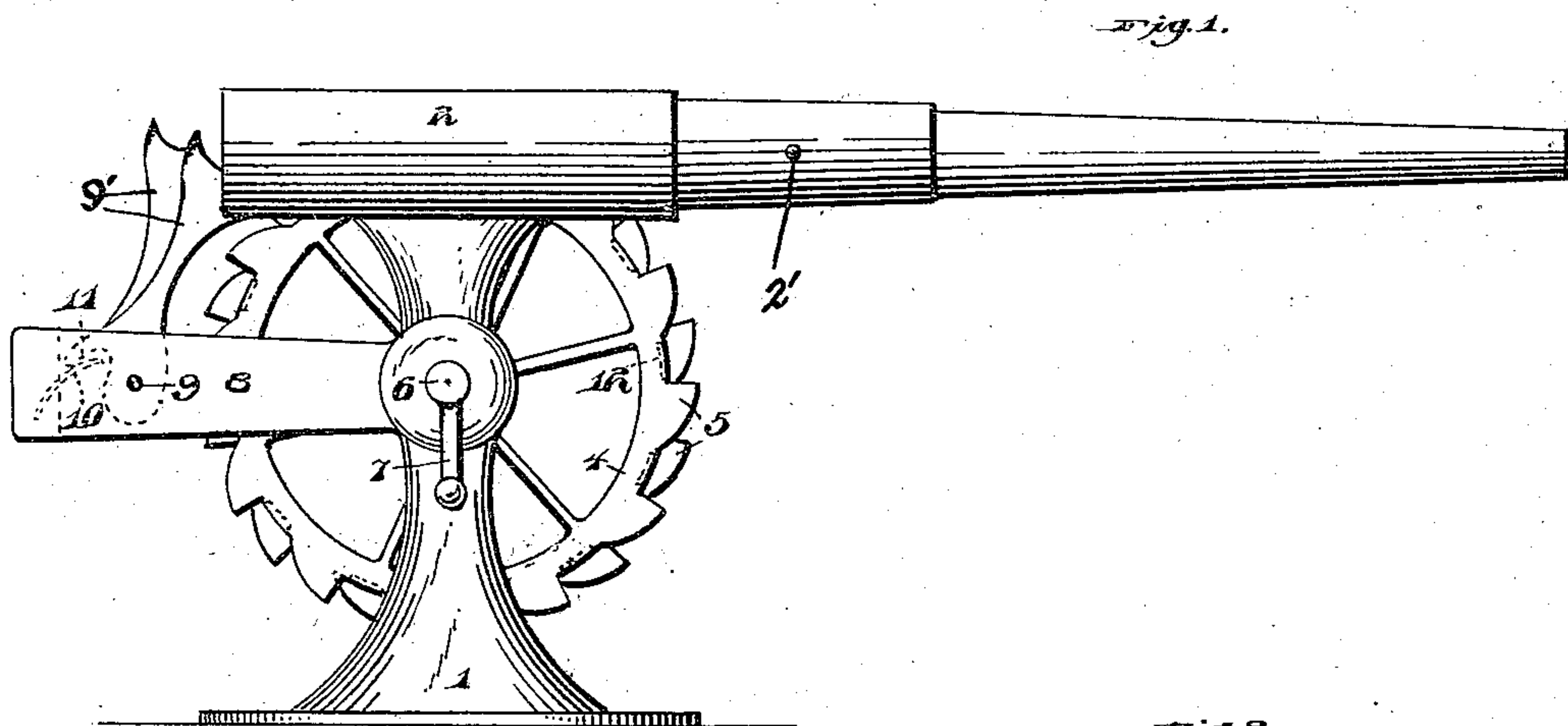
Patented Sept. 17, 1901.

A. F. HUMPHREY.

TOY GUN.

(Application filed Sept. 14, 1900.)

(No Model.)



Witnesses:

*J. B. Appleman,*  
*E. C. Potter.*

Inventor.

*A. F. Humphrey.*  
By

*H. C. Everett & Co.*  
*Attys.*



# UNITED STATES PATENT OFFICE.

ALEXANDER F. HUMPHREY, OF ALLEGHENY, PENNSYLVANIA.

## TOY GUN.

SPECIFICATION forming part of Letters Patent No. 682,990, dated September 17, 1901.

Application filed September 14, 1900. Serial No. 29,991. (No model.)

*To all whom it may concern:*

Be it known that I, ALEXANDER F. HUMPHREY, a citizen of the United States of America, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Toy Guns, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in toy guns, and has for its object the provision of novel means to explode a number of caps arranged in double rows in the periphery of a wheel and to explode said caps alternately first in one row and then in the other as the wheel is revolved.

The invention has for its further object to construct a novel toy of this character that will be perfectly harmless in its use and highly efficient in its operation; furthermore, one that will be extremely simple in its construction, durable, and contain but few parts.

25 The invention still further aims to construct a gun of the above-described character that may be easily loaded and rapidly fired; furthermore, a device of this character wherein none of the parts are liable to break or become out of order.

30 With the above and other objects in view the invention finally consists in the novel combination and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claims.

35 In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate corresponding parts throughout the several views, in which—

40 Figure 1 is a side elevation of my improved gun. Fig. 2 is a similar view showing some of the parts removed in order to more clearly illustrate the novel construction. Fig. 3 is a top plan view of the same.

45 To construct a toy gun in accordance with my invention, I provide a stand 1, with a gun-barrel 2 mounted thereon. The stand and barrel are made in two sections, the one-half of the gun being cast with one-half of the stand, the two sections of the gun being securely fastened together by a rivet 2'.

Each section of the gun is cut away on its inner face at the rear end, so that when the sections are secured together a recess 3 is formed to permit the rotation of the wheel 55 carrying the explosive caps. Journaled in the stand is a shaft 6, upon which is rigidly mounted, between the two sections of said stand, a wheel 4, provided on its periphery 60 with two rows of lugs, the teeth of one face of which are inclined or rounded, as shown, and between each two lugs or teeth of each row is an indentation or seat 12, which is adapted to receive the explosive caps. The 65 lugs are so arranged on the wheel that the teeth or lugs of one row alternate with the teeth or lugs of the other row. Each section of the stand has a rearwardly-extending arm or bracket 8, in which is secured a shaft 9, 70 and upon this shaft 9 are mounted a pair of hammers 9', one for each row of lugs. These hammers are held in constant engagement with the wheel by means of springs 10, one end of which is seated in the ends of the 75 brackets or arms 8 and the other end of which engages shoulders 11, formed on the hammers near their lower or pivoted end. The shaft 6 is provided on one end with a suitable crank 7, by means of which the shaft 80 and wheel may be rotated.

In operation the rotation of the wheel by the shaft 6 and crank 7 causes the striking ends of the hammers to ride upon the inclined or rounded faces of the teeth or lugs, 85 and as they pass out of engagement with each tooth or lug the springs 10 cause them to strike with force upon the caps and explode the same. The arrangement of the teeth or lugs whereby the teeth or lugs in one row alternate with those in the other row causes the striking end of one hammer to be upon the inclined face of a lug or tooth in its respective row at the same time that hammer No. 2 has delivered its blow and exploded a cap, 95 and as this latter hammer passes onto the inclined face of the succeeding tooth or lug hammer No. 1 delivers its blow, so that the explosions are practically continuous until all the caps carried by the wheel have been 100 exploded.

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



1. In a toy gun a cap-wheel having rows of teeth thereon; the teeth of one row being staggered with relation to the teeth of the other row, substantially as described.
  - 5 2. In a toy gun, a cap-wheel having rows of teeth thereon, with cam-surfaces on corresponding edges and straight front walls; the said teeth of one row being staggered with respect to the teeth in the opposite row, and  
10 spring-pressed hammers oppositely actuated, substantially as described.
  3. In a toy gun, a wheel having a row of teeth at each edge; said teeth being out of alinement each having one edge straight and  
15 the opposite edge curved, and hammers alternately riding over the curved surfaces of the teeth, as and for the purpose described.
  4. In a toy gun, a base, a shaft journaled in the base, a wheel mounted on the shaft having  
20 suitably-shaped teeth on each edge of its periphery, the teeth of one row being staggered with relation to the teeth of the opposite row, a bracket extending from the base, hammers pivoted in the bracket and alternately actuated by the teeth, substantially as  
25 described.
  5. In a toy gun, a cap-wheel, two hammers actuated alternately by the cap-wheel, substantially as described.
  6. In a toy gun, a cap-wheel having two  
30 rows of cap-recesses and triggers alternately striking the caps in the recesses.
  7. In a toy gun, a cap-wheel having two rows of cap-recesses, two hammers alternately elevated and depressed by suitable mechanism, substantially as described.  
35
- In testimony whereof I affix my signature in the presence of two witnesses.
- ALEXANDER F. HUMPHREY.
- Witnesses:  
JOHN NOLAND.  
E. E. POTTER.