(No Model.) 2 Sheets—Sheet 1.

H. W. PARSONS.

DISTRIBUTER FOR EXPLOSIVE BOMBS.

No. 401,851. Patented Apr. 23, 1889.

Fig. 1.

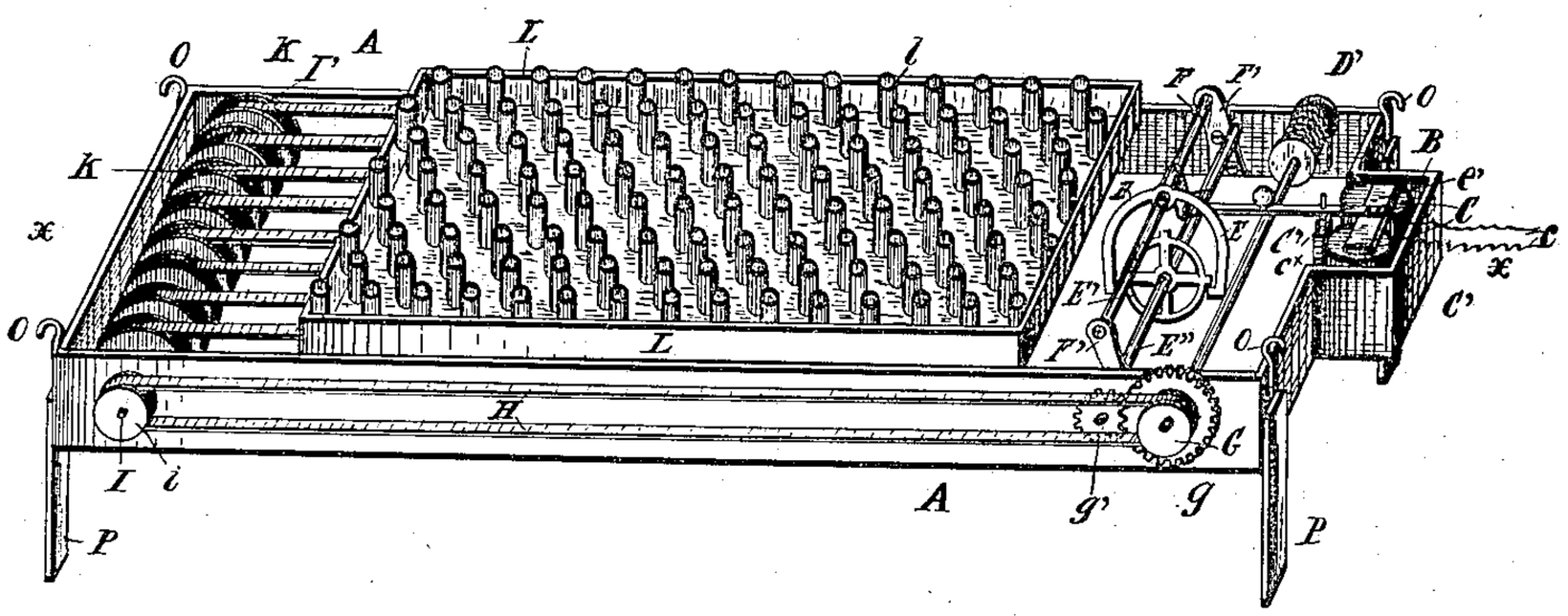
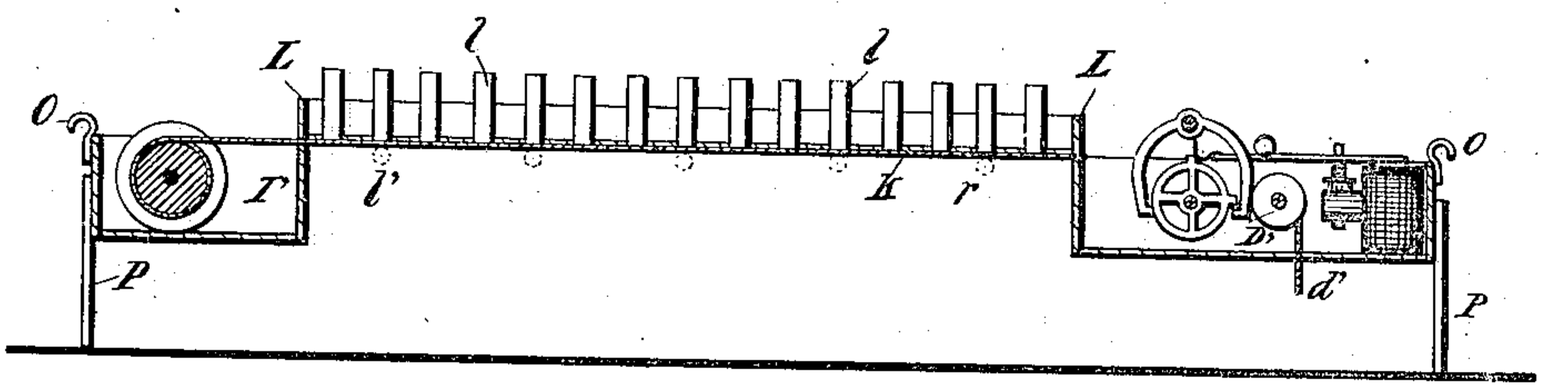


Fig. 2.



Witnesses
Fred^k W. Rubien
C. E. McDonald

Inventor,
Horace W. Parsons
By his Attorneys Finger & Ebner

(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

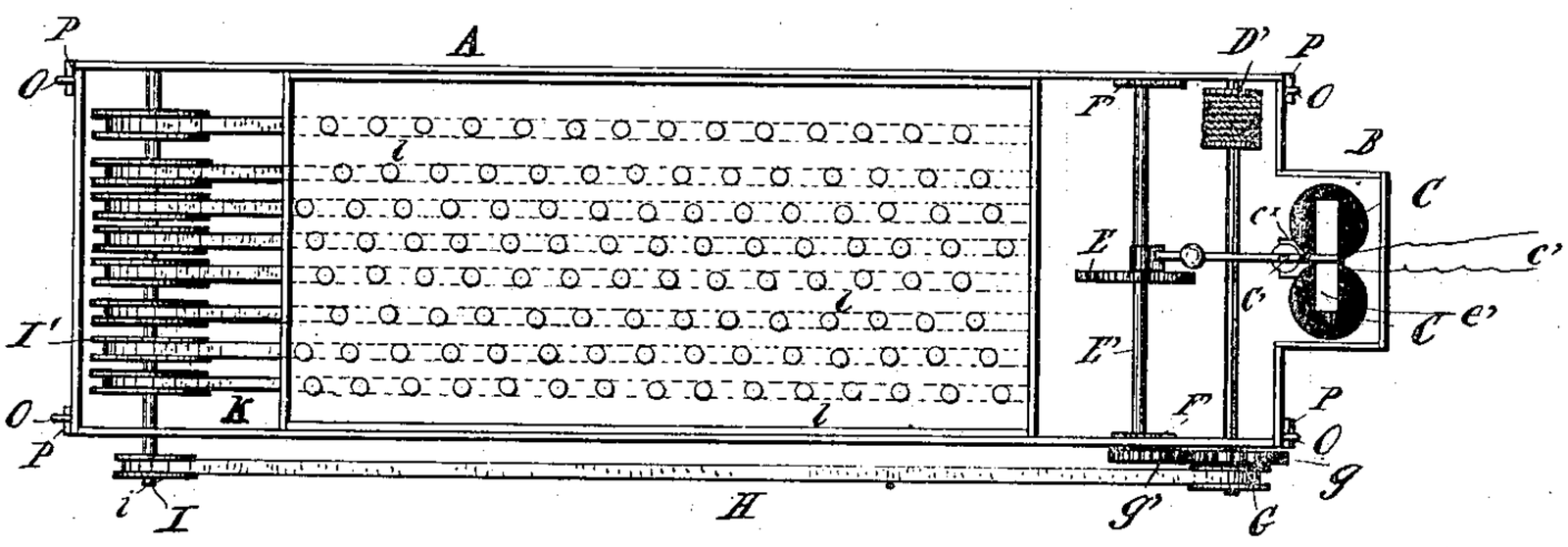
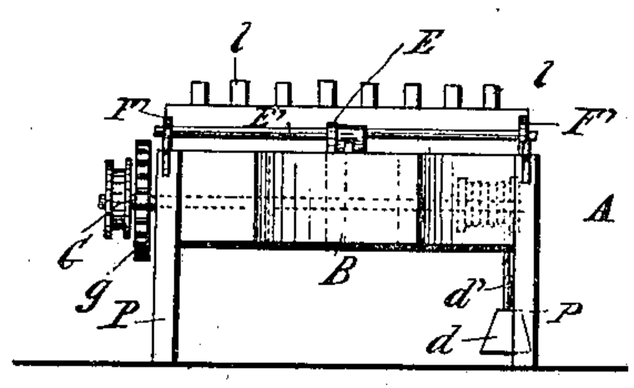


Fig. 4.



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UNITED STATES PATENT OFFICE.

HORACE WARREN PARSONS, OF WAMEGO, KANSAS.

DISTRIBUTER FOR EXPLOSIVE BOMBS.

SPECIFICATION forming part of Letters Patent No. 401,851, dated April 23, 1889.

Application filed August 17, 1888. Serial No. 283,054. (No model.)

To all whom it may concern:

Be it known that I, HORACE WARREN PARSONS, a citizen of the United States, residing at Wamego, in the county of Pottawatomie and State of Kansas, have invented a new and useful Improvement in Devices for Distributing Explosive Bombs, of which the following is a specification.

The object of the invention is to provide a means by which a number of explosive bombs may be carried up into the air over any desired place—such, for instance, as a besieged city—and let fall at the pleasure of the operator into such city.

The nature of the invention consists in the details of combination and construction, substantially as illustrated in the accompanying drawings, hereinafter described, and subsequently pointed out in the claims.

Figure 1 is a perspective view illustrating my invention. Fig. 2 is a sectional view of the same, taken on the line *x x* of Fig. 1. Fig. 3 is a plan view of the same. Fig. 4 is an end view of the same.

In the drawings, A A designate the frame of the machine. In this is placed a case or box, L. In this box are placed series of upright tubes, designated by *l*. These tubes are open both at the bottom and the top. Under each series of tubes is a slide, designated by *k*. These slides consist of a strip or ribbon of flexible thin sheet-brass or other suitable metal, which may, as hereinafter described, be wound around the spools I′ upon the shaft I. Each of these slides *k* extends under the whole length of a series of tubes *l*, so as to shut up the lower ends of all the tubes in the series, but when withdrawn leaves the bottoms of the tubes open. A shaft (designated by I) is journaled in the frame A. Upon this are mounted the spools I′, upon which the slides *k* are to be wound while being withdrawn from under the tubes *l*. Upon this shaft I is also mounted a pulley, *i*, which is connected by a band, H, with the pulley G.

The shaft D is journaled in the frame A. Upon it are mounted the spool D′, the spur-wheel *g*, and the said pulley G. Upon the spool D′ is wound the cord *d′*, which is fastened to the weight *d*. The belt H connects the pulley G and the pulley *i*, as aforesaid. The shaft E″ is also journaled in said frame, upon which shaft are mounted the toothed wheel E′ and the spur-wheel *g′*. This spur-wheel *g′* meshes into the spur-wheel *g*. The motion of the toothed wheel E′ is controlled by the anchor E, which is mounted upon the shaft F. The shaft F is journaled in the brackets F′, which are fastened in the frame A A. In the end of the frame A A, in the recess B, is set one or more electro-magnets, C, which are connected with a battery by the wires *c′ c′*. As this battery may be of any approved kind and does not form any part of my invention, it is not here illustrated. An oscillating lever, C′, pivoted to the bracket $c^{\times}$, is attached by one end to the anchor E, and carries the armature *e′* upon the other end. This armature works upon the magnet C, and the construction and arrangement are such that when the magnet C is energized and draws down the armature *e′* and one end of the lever C′ with it the other end of the said lever lifts one side of the anchor E from the tooth of the wheel E′; but when the magnet is not energized the said anchor will fall back into its original position on the tooth of the wheel E′.

To insure easy motion of the slides *k*, friction-wheels *l′ l′* are provided for each to run on when moved. Legs P P are provided to support the frame A A. This frame is also provided with ears O O, by which it may be carried.

Instead of the flexible ribbons *k′*, rigid metallic slides may be used, drawn by cords or bands, which may be wrapped upon the spools I′. For the weight *d* an actuating-spring or electric motor may be used.

This invention is to be used in connection with a balloon or float, by which it can be raised to a considerable height in the air. In order that it may be attached to such a vehicle by means of ropes, chains, and the like, the ears O have been provided.

As neither the balloon nor the float forms any part of my invention, neither is here illustrated.

To use my invention the magnet is connected with a battery by sufficient length of wire to reach as far as it is desired to send the balloon. The connection must be such that the circuit can be broken or closed at pleasure. The tubes *l* are then filled each with

one or more explosive bombs of such a nature and such construction and such an arrangement that in falling, if they strike any hard resistance—such as the ground or the like—they will instantly explode, the slides *k* being extended under the tubes *l* before they are so loaded. The device is then attached to the balloon or float by means of suitable ropes or chains passing through the ears O, as aforesaid. The device is then ready for action.

When the balloon or float has transported my device to the proper position to let fall the bombs, the operator closes the electric circuit. This immediately energizes the magnet C, which, drawing down the armature *e'* and the end of the lever C', lifts one side of the anchor E and releases the wheel E'. At once the weight *d*, pulling the cord *d'*, unwinds it from the spool D', and so turns the spool, and with it the shaft D, the spur-wheel *g*, the pulley G, the shaft E, the wheel E', and the spur-wheel *g'*. As soon as the pulley G begins to move, by reason of being connected with the pulley *i* by the belt H, it causes that pulley to turn also, carrying with it the shaft I and the spool I'. The slides *k* are then wound upon the spools I'. As the slides are withdrawn the bottoms of the tubes *l* are opened. As each tube is opened the load it contains will be dropped out, to fall downward and explode upon alighting. By closing and breaking the circuit the bombs may be dropped continuously or intermittently, until the supply is expended, at the pleasure of the operator. The spools I' may all be made fast upon the shaft I, so that they will move simultaneously, so that they will discharge the bombs in showers; or these spools may be so arranged on the shaft that the second spool will not begin to turn until the first has wound up the slide, and so with the next, and the next, until all the slides have been wound up. In this way the bombs can be dropped one by one, either continuously or intermittently, at the pleasure of the operator.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, in a device for distributing bombs, with a supporting-frame by which all the various parts of said device may be lifted, series of tubes suitable for receiving bombs fastened upon said frame, and slides capable of being moved so as to close and open the lower ends of such tubes, as specified, of a revoluble shaft journaled in said frame, spools mounted upon said shaft and connected with said slides, so as to move the same when turned, as hereinbefore described, and mechanism, substantially as specified, for turning said shaft, and spools to move said slides, all substantially as and for the purpose set forth.

2. The combination, in a device for distributing bombs adapted to be attached to balloons and other appliances capable of lifting and carrying the same, with a supporting-frame by which the distributer may be lifted and carried, tubes set upright upon said frame and arranged for carrying bombs, slides arranged to move under said tubes to open and close the bottom thereof, and mechanism, substantially as specified, for moving said slides, of an escapement to control the movement of said slides, comprising a shaft journaled in said frame, a toothed wheel mounted upon said shaft, a pinion also mounted upon said shaft to connect it with the said moving mechanism, another shaft journaled in said frame parallel to said last-named shaft, an oscillating anchor mounted upon such shaft, a lever pivoted upon said frame and connecting an armature with said anchor, an electro-magnet working said armature and said lever to oscillate said anchor, and electric conductors by which said magnet may be connected with a battery, all substantially as and for the purpose set forth.

3. The combination, with the frame A A, having legs P, ears O, and recess B, the box L within said frame, and the series of tubes *l* within said box, open at both ends and adapted to receive and carry bombs, as specified, of the shaft I, journaled in said frame, the spools I'. and pulley *i*, mounted upon said shaft, the flexible slides *k*, working under said tubes *l* and adapted to be wound upon the spools I', the shaft D, journaled in said frame, the spool D', the spur-wheel S, and the pulley G, mounted upon said shaft D, the band H, connecting the pulley *i* and the pulley G, the shaft E'', journaled in said frame, the spur-wheel *g'*, mounted upon said shaft E'' and meshing into the spur-wheel *g*, the toothed wheel E', also mounted upon said shaft E'', the anchor E, mounted upon the shaft F and engaging the wheel E', the shaft F, mounted in the brackets F', the lever C', actuating the said anchor E and connecting the said anchor with the armature *e'*, the electro-magnet C, placed within the recess B of said frame and provided with connecting-wires *c' c'*, the armature *e'*, working upon said magnet, the cord *d'*, wound upon the spool D', and the weight *d*, attached to said cord, all substantially as and for the purpose set forth.

In witness whereof I hereunto set my hand in presence of two witnesses.

HORACE WARREN PARSONS.

Witnesses:
J. C. STELZNER,
L. B. LEACH.