(No Model.)

L. LEWIS.

MECHANICAL SCAREALL OR ALARM.

No. 461,379. Patented Oct. 13, 1891.

Fig: 1.

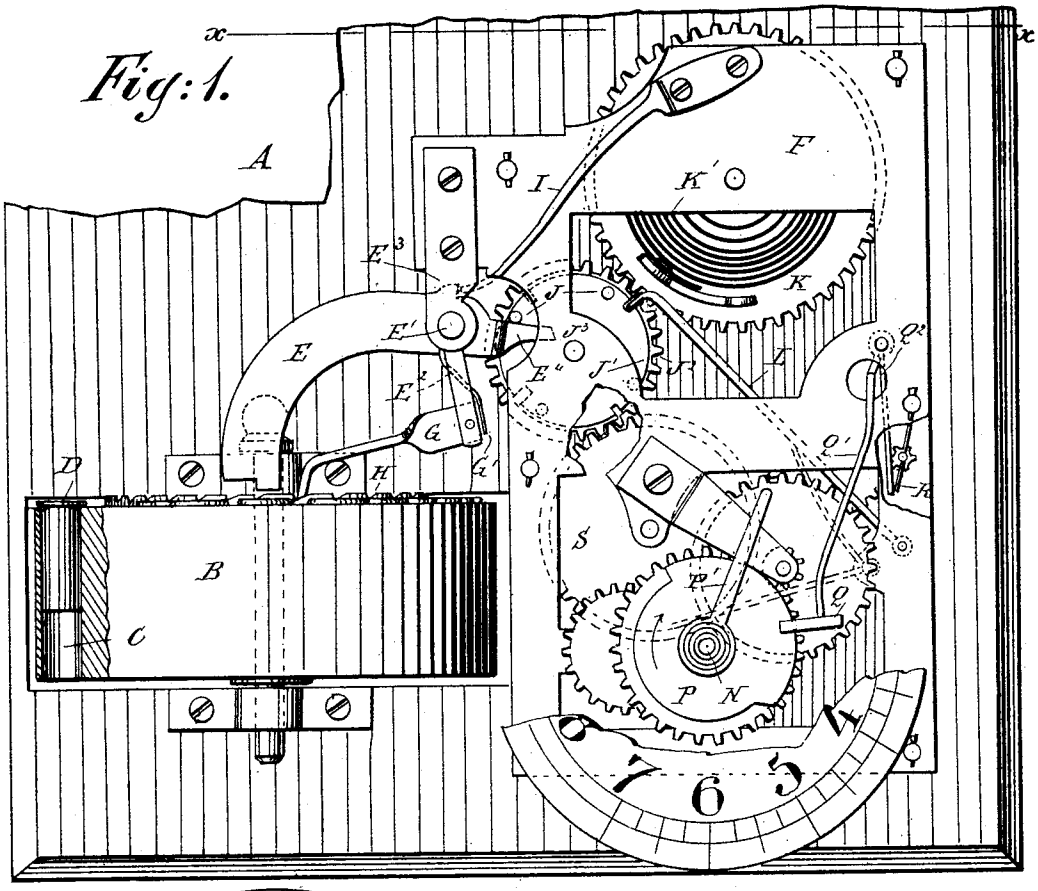
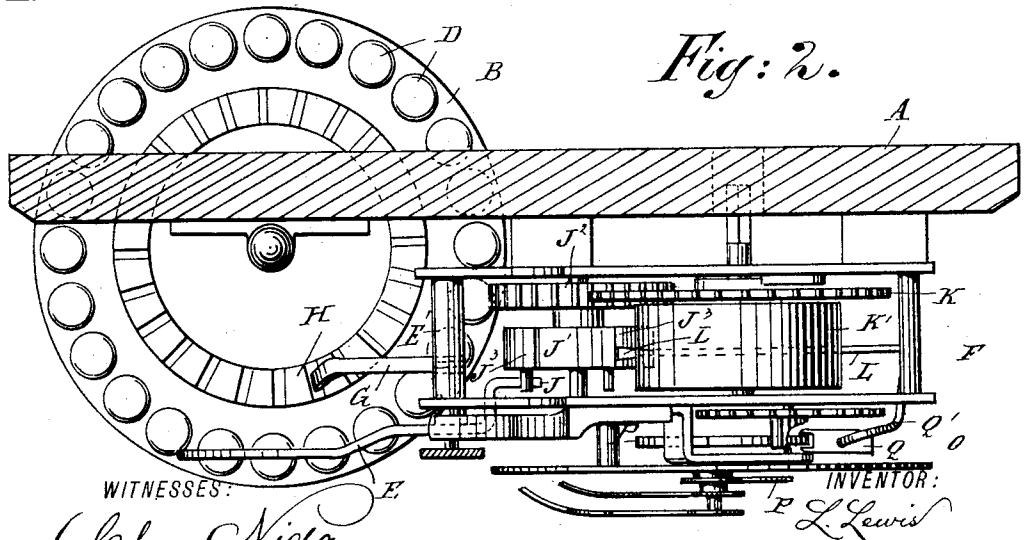


Fig: 2.



WITNESSES:

Chas. Nida

C. Sedgwick

INVENTOR:

L. Lewis

BY Munn & Co

ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

LABAN LEWIS, OF CANADENSIS, ASSIGNOR OF ONE-HALF TO ELY UTT, OF MOUNTAIN HOME, PENNSYLVANIA.

MECHANICAL SCARE-ALL OR ALARM.

SPECIFICATION forming part of Letters Patent No. 461,379, dated October 13, 1891.

Application filed December 8, 1890. Serial No. 373,920. (No model.)

To all whom it may concern:

Be it known that I, LABAN LEWIS, of Canadensis, in the county of Monroe and State of Pennsylvania, have invented a new and Improved Mechanical Scare-All or Alarm, of which the following is a full, clear, and exact description.

The invention relates to devices for scaring persons and animals off of fields, gardens, houses, &c.; and its object is to provide a new and improved device which automatically fires cartridges at stated intervals, either during the day or during the night, or both.

The invention consists of a wheel, mounted to turn and provided with a series of barrels arranged in a circle and adapted to receive cartridges, and a hammer actuated by a clock-work and adapted to fire the cartridges successively in the wheel.

The invention also consists of certain parts and details and combinations of the same, as will be hereinafter fully described, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a front view of the improvements with parts removed and parts in section, and Fig. 2 is a sectional plan view of the same on the line *x x* of Fig. 1.

The improved mechanical scare-all or alarm is mounted on a board A, adapted to be secured to a post, wall, or other place the immediate neighborhood of which is to be protected by the device. On the board A is mounted to turn on a vertical axis a wheel B, provided with a series of barrels C, arranged in a circle and adapted to receive the cartridges D, either loaded or blank, as desired. The cartridges are adapted to be fired by a hammer E, secured on a shaft E′, mounted to turn in suitable bearings formed in the frame of a clock-work F, secured to the board A alongside the said wheel B. On the shaft E′ of the hammer E is secured an arm E^2, on the end of which is pivoted a pawl G, engaging a ratchet-wheel H, formed on the upper face of the wheel B and pressed in contact with the same by a suitable spring G′, secured on the arm E^2. When the hammer E swings upward away from the cartridge previously fired, then the arm E^2 swings forward, and by the pawl G, engaging the ratchet H, turns the wheel B, so as to bring a new cartridge D, in the pawl of the hammer E, to be fired by the hammer when the latter swings downward. A spring I, secured on the frame of the clock-work F, engages a shoulder E^3 on the said hammer E, so as to force the hammer downward to fire a cartridge when the hammer is released, as hereinafter more fully described. The hammer is for this purpose provided with an extension E^4, adapted to be engaged alternately by a series of pins J, arranged in the face of the wheel J′, mounted to turn in the frame of the clock-work F, and carrying the gear-wheel J^2 in mesh with a gear-wheel K, held on a spring-barrel K′, of any approved construction, and mounted in the frame of the clock-work F. In the rim of the wheel J′ are arranged a series of notches J^3, adapted to be alternately engaged by a lever L, fulcrumed in the frame of the clock-work F, and actuated from the shaft of the minute-hand of the said clock-work every half-revolution of the said minute-shaft. The clock-work is provided with the usual dial O, on which indicate the hands or pointers, and on which also indicates a third hand P′, connected with a cam-wheel P, secured on the shaft N of the hour-hand, so as to revolve with the latter. The cam-wheel P has one-half of its rim enlarged, as is plainly illustrated in Fig. 1, the said rim being engaged by a shoe Q, secured on the end of the lever Q′, mounted in the frame of the clock-work F, and carrying an arm Q^2, adapted to release or unlock the regulating fan-wheel R, connected by a train of gear-wheels S with the gear-wheel J^2, previously mentioned.

When the hour-shaft makes one full revolution, the shoe Q travels during twelve hours of the enlarged portion of the said cam, thus holding the arm Q^2 in contact with the fan-wheel R, so that the latter is prevented from being actuated by the force of the spring in the barrel K′. When the shoe Q travels on the smaller portion of the cam-wheel P, then the arm Q^2 is disengaged from the fan-wheel R and the latter is free to revolve whenever the lever L is actuated from the minute-shaft

and disengaged from the respective notch J^3 and the wheel J. The bearing in the barrel K′ then exerts its force to rotate the gear-wheel K, thereby turning the gear-wheel J^2 so as to revolve the wheel J′, which, by its respective pin J, pressing on the extension E^4 of the hammer E, raises the latter until the said pin has passed the extension, after which the spring I forces the hammer E downward, and the respective cartridge in the path of the hammer is fired.

By shifting the hand or pointer P′, previously described, the cam P can be set so as to start the hammer-actuating mechanism at any desired time. By dispensing entirely with the cam P, the shoe Q, the lever Q′, and its arm Q^2 the device will actuate the hammer during the twenty-four hours of the day. The wheel B is preferably provided with twenty-four barrels C, so that it requires no recharging inside of twenty-four hours.

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

1. In a mechanical scare-all, the combination, with a wheel mounted to turn and provided with a series of barrels arranged in a circle, each adapted to receive a cartridge, of a spring-pressed hammer adapted to fire the said cartridge successively on the turning of the said wheel, and a clock-work for raising the said hammer, substantially as shown and described.

2. In a scare-all, the combination, with a wheel mounted to turn and provided with a series of barrels arranged in a circle, each adapted to receive a cartridge, of a spring-pressed hammer adapted to fire the said cartridges successively in the said wheel, a clock-work for raising the said hammer at intervals, and a pawl actuated from the said hammer and engaging a ratchet-wheel on the said wheel to turn the latter, substantially as shown and described.

3. In a scare-all, the combination, with a wheel mounted to turn, barrels formed on the said wheel and arranged in a circle, and a ratchet-wheel held on the face of the said wheel, of a hammer adapted to fire the cartridges in the said barrels, a spring for forcing the said hammer downward, a mechanism, substantially as described, for raising the said hammer, and a pawl actuated from the said hammer and engaging the said ratchet-wheel to shift the said wheel whenever the said hammer is raised by the said mechanism, substantially as shown and described.

4. In a scare-all, the combination, with a wheel mounted to turn, barrels formed on the said wheel and arranged in a circle, and a ratchet-wheel held on the face of the said wheel, of a hammer adapted to fire the cartridges in the said barrels, a spring for forcing the said hammer downward, a mechanism, substantially as described, for raising the said hammer, a pawl actuated from the said hammer and engaging the said ratchet-wheel to shift the said wheel whenever the said hammer is raised by the said mechanism, and a tripping device for locking and unlocking the said hammer-actuating mechanism, substantially as shown and described.

5. In a scare-all, the combination, with a wheel mounted to turn, barrels formed on the said wheel and arranged in a circle, and a ratchet-wheel held on the face of the said wheel, of a hammer adapted to fire the cartridges in the said barrels, a spring for forcing the said hammer downward, a mechanism, substantially as described, for raising the said hammer, a pawl actuated from the said hammer and engaging the said ratchet-wheel to shift the said wheel whenever the said hammer is raised by the said mechanism, a tripping device for locking and unlocking the said hammer-actuating mechanism, and means for setting the said tripping device, as set forth.

LABAN LEWIS.

Witnesses:
THEO. G. HOSTER,
C. SEDGWICK.