

(No Model.)

G. Q. SEAMAN.
TIME ALARM BED.

No. 479,307.

Patented July 19, 1892.

Fig 1

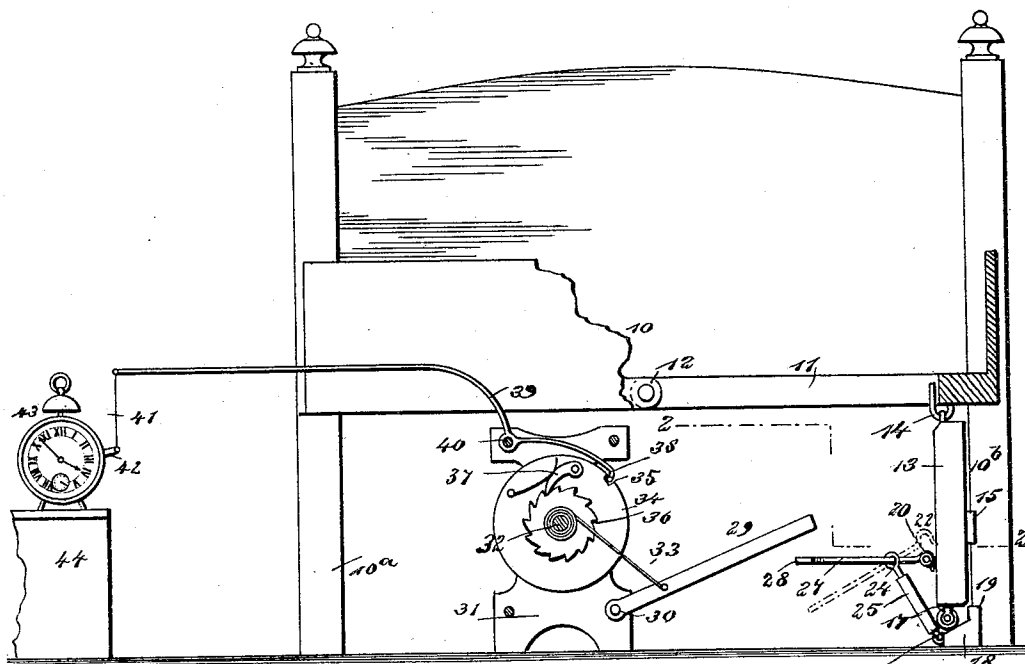


Fig 2

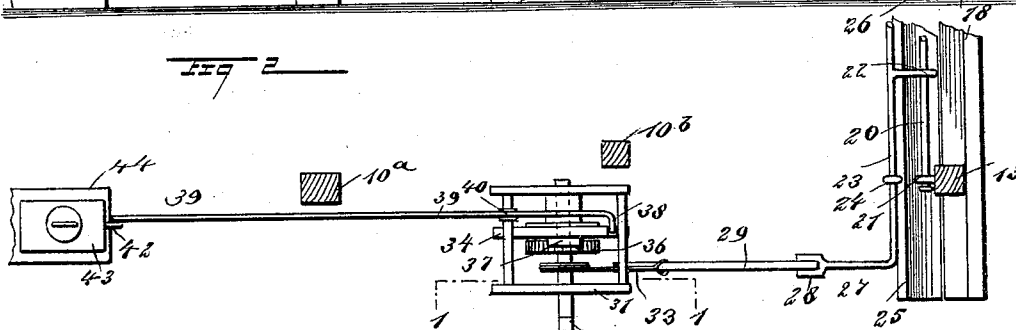
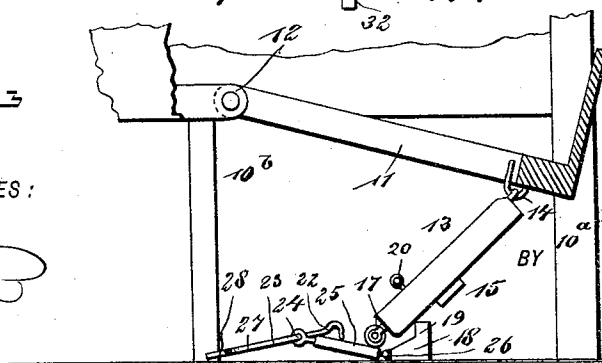


Fig 3



WITNESSES:

H. Walker
C. Sedgwick

INVENTOR
G. Q. Seaman
BY
Munn & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGE Q. SEAMAN, OF BROOKLYN, NEW YORK.

TIME-ALARM BED.

SPECIFICATION forming part of Letters Patent No. 479,307, dated July 19, 1892.

Application filed March 22, 1892. Serial No. 425,938. (No model.)

To all whom it may concern.

Be it known that I, GEORGE Q. SEAMAN, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Alarm-Bed, of which the following is a full, clear, and exact description.

My invention relates to improvements in alarm-beds and attachments therefor. It is well known that the ordinary alarm-clock often fails of its purpose in waking people or at least in compelling them to get up; and the object of my invention is to produce a bed and attachments therefor which will overcome this difficulty and which at any required time will actually eject the occupant of the bed, so that the said occupant will not only be awakened, but must necessarily arise.

To this end my invention consists in certain features of construction and combinations of parts, which will be hereinafter described and claimed.

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

Figure 1 is a broken end view, partly in section, of a bed, showing my improvement and the clockwork mechanism for operating the same. Fig. 2 is a sectional plan on the line 2 2 in Fig. 1, and Fig. 3 is a broken cross-section of the bed, showing it in position to drop and eject the occupant.

The bedstead 10 may be of any approved construction, and is mounted upon side legs 10^a and middle legs 10^b, and one side of the bed-bottom 11 is hinged near the center of the bed, as shown at 12 in Fig. 1, so that it may swing downward, and this movable portion of the bed-bottom is supported on loose legs 13, which at the top are secured to hooks 14, which are secured to the swinging-leaf portion 11 of the bed-bottom. The legs 13 are connected by a cross-brace 15 and they are provided at the bottom with rollers 17, which enable them to swing easily when necessary. The rollers 17 rest normally upon a floor-cleat 18, which extends longitudinally beneath the bed and which is inclined inward on its inner side, so that the rollers will have a tendency to roll inward, and the cleat

has a vertical projection 19 at the top of the inclined surface, this projection limiting the outward swing of the loose legs 13.

A rod 20 is secured on the inner side of the loose legs 13, being held in keepers 21 or their equivalents, and this rod is adapted to engage a hook 22, which projects laterally from a rod 23, which rod extends longitudinally beneath the bed and parallel with the rod 20, the rod 23 being journaled in keepers 24, which are secured to the upper edge of a swinging leaf 25, this leaf being hinged to the inner lower edge of the cleat 18, as shown at 26.

It will be seen that when the legs 13 are in a vertical position the leaf 25 may be turned up and the hook 22 made to engage the rod 20, and the leaf will be held in a raised position and will serve as a brace to hold the legs 13 from swinging inward.

At one end the rod 23 is bent inward to form a crank 27, which terminates in a plate 28, this being arranged in the path of a swinging lever 29, which is pivoted at one end, as shown at 30, to a frame 31, arranged beneath one end of the bed. A rod 32 is journaled in the frame 31 and is held parallel with the rods 20 and 23, and secured to this rod or shaft 32 is a cord or wire 33, the outer end of the cord being fixed to the end of the lever 29. The shaft 32 has one squared end, as shown in Fig. 2, so that it may be wound up with a key, and by winding the shaft and the cord 33 thereon the lever 29 will be raised, and when the shaft is released the lever will drop of its own weight.

A tripping-disk 34 is journaled loosely on the shaft 32 and is provided in its edge with a notch 35, adapted to engage a tripping-lever, as described below, and fixed to the shaft on one side of the tripping-disk is a ratchet-wheel 36, which is engaged by a spring-pressed pawl 37, pivoted on the disk, and the pawl prevents the shaft from turning in relation to the disk when the disk is held in a fixed position. The disk 34 is prevented from turning by the bent end 38 of a lever 39, which enters the notch 35 in the disk, and the lever is pivoted, as shown at 40, to the upper portion of the frame 31. The lever 39 extends

outward beyond one edge of the bed, and its free end is connected by means of a cord or wire 41 with the lever 42, which is secured to the alarm-spindle of a common alarm-clock 43, which may be arranged upon a convenient stand 44.

The operation of the bed and the mechanism is as follows: The alarm-clock is set in the usual way at the time at which the occupant of the bed wishes to rise. The clock is connected with the lever 39, as described. The lever 39 is connected with the disk 34 to prevent that from turning. The shaft 32 is wound up so as to hold the lever 29 in a raised position, as shown in Fig. 1, and the leaf 25 is fastened up by the hook 22 so as to hold the loose legs 13 in a vertical position, and they will support the bed bottom or leaf 11 so that it will be perfectly level. The occupant of the bed need not have any concern about being awakened, as he may sleep calmly on without listening for the alarm; but at the time at which the alarm is set the downward movement of the lever 42 tilts the lever 39, which releases the disk 34, and permits the disk, the ratchet-wheel, and the shaft 32 to unwind, and the lever 29, striking on the free end of the crank 27, tilts the rod 23, thus permitting the leaf 25 to drop, and the legs 13 run inward beneath the bed, the leaf 11 swings inward, and the occupant is spilled upon the floor. It will thus be seen that there is no possibility of his oversleeping.

It will be noticed that the leaf 11 of the bed-bottom is hinged near the center of the bed, and so, if there are two occupants of the bed, one may be thrown out without in any way disturbing the other; but in single beds the whole bottom may be made to drop in the manner described.

If necessary or desirable, two alarm-clocks may be used instead of one and connected

with the lever 39, so that in case one clock stops the other will perform its duty.

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

1. The combination, with the bed, the swinging bottom, the loose legs for supporting the bottom, and the lever mechanism for fastening the legs, of a clockwork mechanism adapted to release the lever mechanism and trip the legs, substantially as described.

2. The combination, with the swinging bed-bottom and its supporting-legs, of an inclined cleat forming a rest for the legs, a swinging leaf hinged to the cleat, a crank-rod carried by the leaf and adapted to be fastened to the legs, and a clockwork-operated tripping-lever adapted to swing against the crank, substantially as described.

3. The combination, with the swinging bed-bottom and its supporting-legs, of an inclined support for the legs, a rod connecting the two legs, a swinging leaf hinged to the inclined support, a crank-rod journaled on the leaf and having a hook to engage the leg-rod, a swinging lever adapted to strike on the crank of the crank-rod, and a clockwork mechanism for releasing the lever, substantially as described.

4. The combination, with the swinging bed-bottom and its supporting-legs, of an inclined support for the legs, a fastening device to hold the legs to the support, a swinging crank-arm adapted to release the fastening device, a swinging lever adapted to strike the crank-arm, and a clockwork mechanism for releasing the lever, substantially as described.

GEORGE Q. SEAMAN.

Witnesses:

GEO. GOODWIN,
ROBERT K. BRYERS.