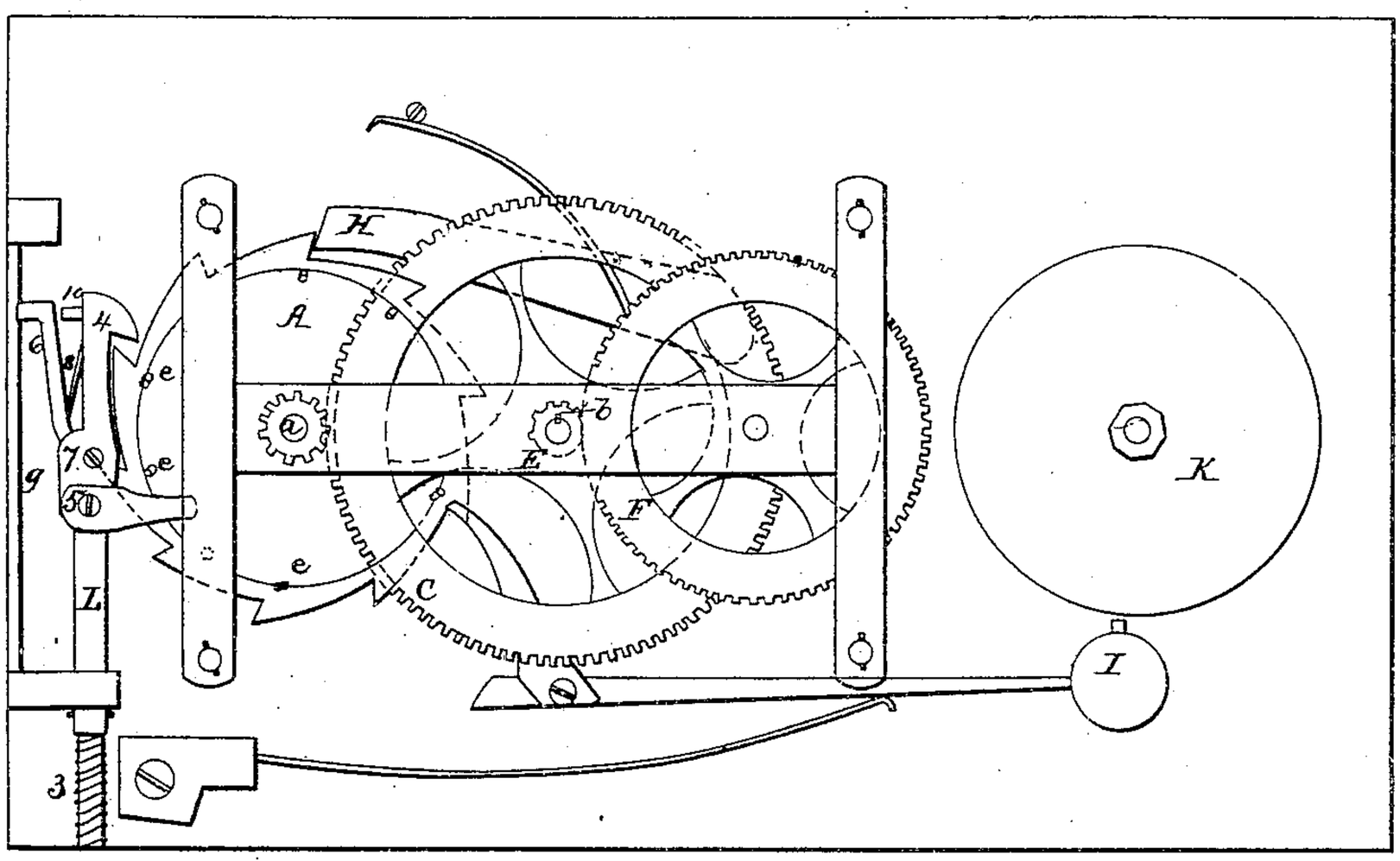
L. CROMWELL.

OMNIBUS REGISTER.

No. 14,652. Patented Apr. 15, 1856.



UNITED STATES PATENT OFFICE.

LEVI CROMWELL, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN OMNIBUS-REGISTERS.

Specification forming part of Letters Patent No. **14,652,** dated April 5, 1856.

To all whom it may concern:

Be it known that I, LEVI CROMWELL, of the city and county of Baltimore, and State of Maryland, have invented certain new and useful Improvements in Omnibus-Registers; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification.

The nature of my improvement consists in constructing an omnibus-register that shall indicate the entrance and exit of every passenger, giving notice by a stroke upon a bell and indicating upon a dial-plate the number passing in and out. The arrangement is such that efficiency of operation and accuracy of registration are both secured.

To enable others skilled in the art to make and use my improvement I will proceed to describe it as follows:

A is the principal wheel, upon which the draw-catch 4, connected by a wire with the step, operates. This is furnished with heavy teeth for reasons to be hereinafter explained.

a is a shaft passing through A.

B is a small pinion mounted on shaft *a*, the number of teeth in the pinion corresponding with the number of heavy teeth of wheel A.

C is a second wheel meshing into pinion *a*. Its shaft *b* carries the index or hand D.

E is a pinion on shaft *b*, giving motion to the third wheel F, whose axis carries the hand G and registers the revolutions of the second wheel.

H is a heavy stop-dog or detent, furnished with a suitable spring *d*.

e e e are stubs projecting from the side of wheel A, whose office is to draw the hammer I in a manner similar to that of a clock.

K is the bell.

The operating pawl effects the turning of the wheel A by a drawing (not pushing) movement, and is provided with an accommodation for passing the heavy ratchet-teeth of wheel A. It consists of a sliding bar L, to which is attached the stem 2. To the lower end of this the rod or wire connected with the step is attached.

3 is a helical spring surrounding the stem.

4 is a hinged heavy dog pivoted on bolt 5.

6 is a drop-leaf hinged to the dog pivoted on bolt 7. Between the leaf and back of the dog is a slap-spring 8 for throwing the dog into the recess of the tooth on A.

9 is a fixed way on which the drop-leaf 6 plays up and down.

10 is a stop inserted in the back of the head of dog 4. This stop is important, as it prevents the passing of the tooth of A except when the stem and dog are thrown entirely up to its full stretch. For want of such provision it is possible that the bell might be struck twice and the register also, or the register moved by the jolt of the coach when passing over gutters in crossing streets. This has been the chief objection to all the registers heretofore presented. This improvement in controlling the movement of the main wheel also prevents the possibility of persons effecting a movement thereof by dancing on the steps as they pass in the coach, as it is necessary to effect a movement of the register that the weight shall be applied and then fully removed to effect an action on the mechanism.

The following observations will enable any one to understand its use: In setting the register place the index at 100 and the small hand at 8. As each passenger passes into the coach his weight depresses the movable step connected with the wire or rod from the end of the pull and moves the large hand of the register one division of the circle. The bell-hammer at the same time being drawn and released gives notice by a stroke on the bell. On the exit of the passenger the same result is produced and a second division of the circle passed over, thus giving two marks or divisions for each passenger carried. In summing up the dues or receipts it is only necessary to halve the number indicated, and this circumstance will be a means of correcting the accuracy of the register, as an even number should be the result.

The wires, levers, and all parts of the apparatus are all secured by pipes and casing to prevent tampering with.

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

The use of the bar 10 for the double pur-

pose of a stop by which the operating-pawl shall at the end of its thrust be confined within the circle of the ratchet-teeth of the wheel, and thus lock it, and of a medium by which to apply a strong force through the sliding lever or drop-leaf 6, or its equivalent, to the spring of the pawl, substantially as herein set forth.

In testimony whereof I have hereunto signed my name before two subscribing witnesses.

LEVI CROMWELL.

Witnesses:
W. I. CLARK,
JOHN S. HOLLINGSHEAD.