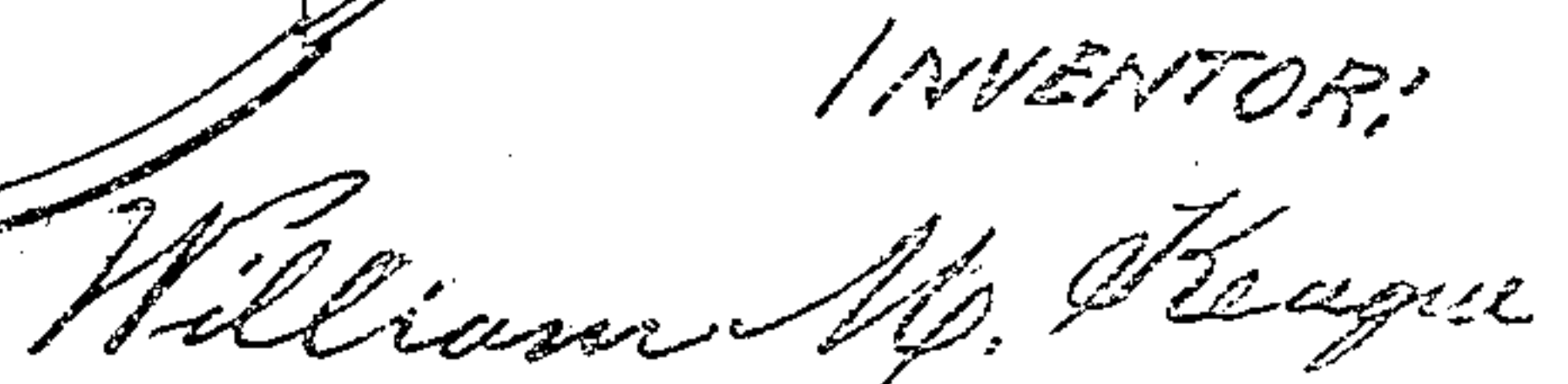


Omnibus Register.

Patented Oct. 11, 1859.



WITNESSES:
M. M. Lumsden
C. M. Hughes.

UNITED STATES PATENT OFFICE.

WILLIAM M. KEAGUE, OF BROOKLYN, NEW YORK.

OMNIBUS-REGISTER.

Specification of Letters Patent No. 25,740, dated October 11, 1859.

To all whom it may concern:

Be it known that I, W. M. KEAGUE, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Omnibus-Register; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 represents a longitudinal vertical section of my invention. Fig. 2 is a plan or top view of the same, the cover being removed so as to expose the working part. Fig. 3 is an enlarged sectional view of the mechanism for transmitting the movement of the step to the registering apparatus.

Similar letters in the three views indicate corresponding parts.

This invention consists in a particular arrangement of parts for the purpose of transmitting the vibrating motion of the step to the registering apparatus, the whole being so arranged and adjusted that a certain known weight placed on the step sends the index-hand of the registering apparatus around one half of the space between two successive marks on the dial-plate and that for every full grown person, as the same steps into the omnibus and out again one fare is registered. Persons of less than the standard weight will cause the index-hand to move only, in stepping out, as will be hereinafter more fully explained, so that for such only one half of a fare is registered.

To enable those skilled in the art to make and use my invention I will proceed to describe it.

The step, A, is constructed of a bed-plate, B, that supports the whole of the registering apparatus. Secured to this bed-plate by means of a vibrating three armed lever, C, is the platform, D, in such a manner that a weight placed on the same causes it to sink down. The lever, C, is connected to the under side of the platform by means of a rod, *a*, passing through lugs, *b*, and to the upper side of the bed-plate, B, by a rod, *c*, passing through lugs, *d*, and the position of the platform is further steadied by additional levers, E, secured to the platform and to the bed-plate by pins, *e*, passing through lugs, *f* and *g*, as clearly shown in Figs. 1 and 2.

The rod, *c*, forms the fulcrum of the lever, C, which is situated quite closely to the

points where said lever is attached to the platform so that a slight motion of the platform causes a considerable vibration of the longer arm of the lever. The end of this arm forms a fork, *h*, the two prongs of which connect by means of rods, *i*, with a cross-bar, F, which is attached by means of a screw-rod, *j*, to a stiff spring, G, in such a manner that by the action of said spring the cross-bar, F, together with the fork, *h*, is depressed and consequently the front end of the lever, C, together with the platform, D, is raised as will be easily understood by referring to Fig. 1 in the drawing. The screw rod, *j*, serves to adjust the tension of the spring, G, so that by increasing the effective length of said rod the tension of the spring is decreased and a smaller weight placed on the platform, D, is enabled to overcome the power of said spring and to depress the platform. If, on the other hand, the effective length of the screw-rod is decreased, it takes a larger weight to depress the platform. The screw-rod, *j*, is furnished with a square head, *k*; and the lower end of said rod screws into a sliding plate, L. By using the head, therefore, the plate, L, moves up and down, increasing or decreasing the tension of the spring so that the platform, D, can readily be adjusted in such a manner as to be depressed by any desired weight.

The long arm of the lever, C, connects by a link, *m*, with a sliding bar, H, which moves up and down in guides, I, that are secured to a plate, J, which forms a part of the frame of the registering mechanism. The sliding bar, H, is provided with a spring-catch, *n*, (see Fig. 3) that catches under pins or cogs, *o*, of a wheel, K, which is secured to an arbor, *p*, and from this arbor motion is conveyed by means of a pinion, *q*, and wheel, *r*, to an arbor, *s*, that carries the index-hand, L. This hand moves over a dial-plate, M, that is marked with a number of figures, and the proportion between the wheel, K, pinion, *q*, and wheel, *r*, is such that for each cog of the wheel, K, the index-hand, L, moves over one-half the space between two successive figures on the dial plate. A pawl, *t*, that is secured to a rock-shaft, *u*, and depressed by a spring, *v*, prevents the wheel, K, turning back. An additional index-hand, *a'*, is moved by the pinions, *b'* *b'*, and wheels *c'*, *c'*, in such a manner that it travels over a portion of

the circle during the time the index, L, has completed one revolution in the same manner as the hour hand, and the minute hand of a watch or clock.

5 If a weight be placed on the platform, D, the spring bar, H, together with the spring catch, *n*, will move up and a rotary motion will be imparted to the wheel, K. The weight must be so heavy, or the spring, G, must be so adjusted, that the platform is 10 depressed sufficiently to turn the wheel, K, over the whole distance between two subsequent cogs so that when the weight is taken off, and the sliding bar recedes, the spring 15 catch, *n*, catches under the next following cog. By this motion the index-hand, L, is propelled over one half of the distance between two subsequent marks on the dial-plate. If the weight placed on the platform 20 is not sufficiently heavy, the motion imparted to the sliding-bar, H, is not sufficient to turn the wheel, K, over the whole distance between two of its cogs, so that the spring-catch, *n*, is not enabled to catch under a new 25 cog, and the weight can be put on the platform and taken off a number of times without producing an effect on the index-hand, L. On the other hand the platform, D, is so arranged that the weight may be ever so 30 heavy and it will not produce sufficient motion of the sliding-bar, H, to turn the wheel, K, over more than one cog.

It is now desired to charge full fare for all persons weighing 50 lbs. and upward; 35 the spring, G, is so adjusted that with a weight of 50 lbs. the wheel K, is turned for one cog and whenever a person weighing over 50 lbs. steps into the omnibus and out again, the wheel, K, will be caused to move 40 over two cogs, and the index-hand, L, will travel from one mark on the dial plate to the next one.

If a person weighing less than 50 lbs.

steps into the omnibus, no motion of the index hand will be produced. The weight 45 of such a person in stepping out however will be sufficient to cause the wheel, K, to move over one cog, the momentum of the person in stepping down being sufficient to overcome the tension of the spring even if 50 the absolute weight of said person is smaller than the standard weight (50 lbs.) to which the spring is adjusted. For persons weighing less than 50 lbs., therefore, the index-hand L, will be moved over one half the distance 55 between two subsequent marks on the dial plate, whenever such a person steps into the omnibus, and out again, and only half a fare will be registered.

It is obvious that the number of fares registered by my apparatus can be increased 60 at pleasure so that the person having charge of the stage line is enabled at all times to compare the amount of money handed in by the driver of the omnibus with the number 65 of fares registered by the apparatus.

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

1. The arrangement and combination of 70 the platform, D, vibrating lever, C, and adjustable spring, G, substantially as and for the purpose specified.

2. In combination with the platform, D, and spring, G, I claim the sliding bar, H, 75 spring catch, *n*, and wheel, K, substantially as and for the purpose described.

3. Arranging the step, A, in combination with the registering apparatus, substantially 80 as described, so that it registers half fares as well as full fares.

WILLIAM M. KEAGUE.

Witnesses:

M. M. LIVINGSTON,
C. M. HUGHES.