

(No Model.)

F. W. G. BRUHN.
FARE REGISTERING APPARATUS.

No. 571,989.

Patented Nov. 24, 1896.

Fig. 1.

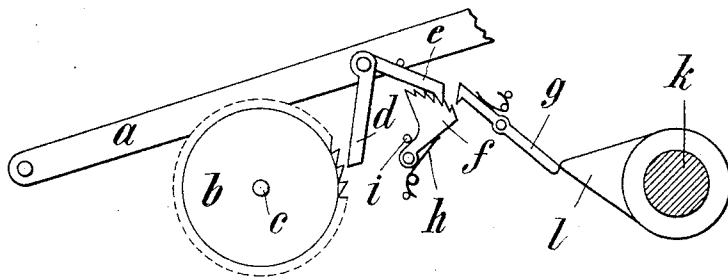
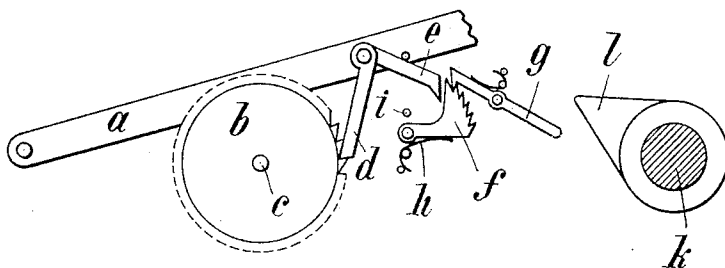


Fig. 2.

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FRIEDRICH WILHELM GUSTAV BRUHN, OF BERLIN, GERMANY.

FARE-REGISTERING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 571,989, dated November 24, 1896.

Application filed February 7, 1896. Serial No. 578,340. (No model.)

To all whom it may concern:

Be it known that I, FRIEDRICH WILHELM GUSTAV BRUHN, a subject of the German Emperor, and a resident of Berlin, in the German Empire, have invented certain new and useful Improvements in Fare-Registering Apparatus, of which the following is a specification.

My invention relates to improvements in devices connected with apparatus for automatically indicating the fare due on a cab or other public conveyance, said fare indicating or registering apparatus being of any construction indifferent whether the registration of the fare takes place solely in proportion to the time occupied on the journey or according to both time and distance, apparatus of such kind being particularly described in the specification forming part of United States Patents No. 183,960, dated October 31, 1876, and No. 383,758, dated May 29, 1888, granted to Wilhelm Nedler; No. 450,602, dated April 14, 1891, granted to Dencker and Erhardt; No. 485,529, dated November 1, 1892, granted to myself, and No. 509,799, dated November 28, 1893, granted to Erhardt.

In the use of such fare-registering apparatus it often happens that it becomes necessary to stop their action for a certain time, for example, when the horse falls, in which case the fare-indicator should be thrown out of action until the horse has gotten up again. The apparatus should also be stopped during the time expiring while the passenger is settling the payment of his fare with the driver.

The object of my invention is to meet this requirement and to provide means whereby the driving mechanism of the fare-indicating apparatus can be thrown out of gear for a certain time, during which time the position of the fare-indicating hand or figure remains unchanged. After such lapse of time the driving mechanism becomes automatically reengaged, and the fare-indicator then advances, as before, in the prescribed manner.

The characteristic feature of my improved device is a segment of a circle, which, by a certain movement of a movable mechanism to which the driver has access, (for example, the shaft of the tariff-changing mechanism or the shaft to which the signaling device, indi-

cating to the public whether the carriage is engaged or disengaged, is connected,) is interposed between the fare-indicating shaft and the main actuating part of the fare-registering apparatus, and must be moved back by the latter to the initial position before the fare-indicating shaft can be further acted upon by the driving mechanism. The connection of the segment with the intermediate mechanisms may be effected in different ways.

To make my said invention more clearly understood, reference may be had to the accompanying drawings, in which, by way of example, my improved device is diagrammatically shown by Figure 1 in the ordinary position in which the fare-registering apparatus is in action, and by Fig. 2 in the position in which the driving mechanisms of the fare-registering apparatus are thrown out of gear.

Similar letters refer to similar parts throughout both views.

In the present example, *a* indicates a lever designed to operate through the pawl *d*, the intermittently-rotating wheel *b*, connected to the spindle or axis *c*, carrying the hand which indicates the fare to be paid on the dial of the fare-registering apparatus. The said lever *a*, forming a main part in the apparatus hereinbefore particularly referred to, is in time apparatus caused to oscillate about its pivot by a clockwork, while in combined time and distance apparatus the said lever is caused to oscillate by clockwork as well as by a measuring-wheel (a wheel of the cab from which motion is derived for actuating the fare-registering apparatus) through the medium of suitable intermediate mechanism.

When the advancing motion of the hand or hands is required to be stopped for a certain time, the driver turns the shaft *k* (forming the accessible part of the tariff-changing mechanism or of the signaling device, as the case may be) until an arm or cam *l* thereon disengages the stop lever or pawl *g* from the teeth of the segment *f*, which is then moved by a controlling-spring *h* against a stop *i*, Fig. 2. In this position of the said segment the branch *e* of the actuating-pawl *d* of the oscillating lever *a* is supported by the segment *f*, and therefore the pawl *d* cannot be caused by the lever *a* to engage with the indicator-wheel *b*. The oscillating lever on its next downward

oscillation is therefore unable to actuate the indicator. The downward movement of the oscillating lever *a*, however, by means of the adjunct or branch *e* of the pawl *d*, which adjunct itself acts as a pawl, causes the toothed segment *f* to return toward its former position to the extent of one tooth. The aforesaid stop lever or pawl *g*, which, after having been released by its actuating arm or cam *h*, can reengage the teeth of the segment *f*, arrests the latter in the lowered position, so that each downward movement of the oscillating lever *a* causes the segment *f* to return by steps toward its initial position. When the adjunct *e* of the pawl *d* has displaced the last tooth of the segment *f*, the lever *a* is again enabled to produce a downward oscillation to such an extent that the pawl *d* again engages the indicator-wheel *b*, whereby the spindle *c* and the hand thereon are again actuated.

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

1. In a fare-register, the combination with the indicator-ratchet, and its actuating lever and pawl, of a hand-operated stop adapted to move and hold said pawl out of engagement with its ratchet and means for automatically disengaging the stop from the pawl, for the purpose set forth.

2. In a fare-register, the combination with the indicator-ratchet, its actuating lever and pawl, of a hand-operated stop adapted to move and hold said pawl out of engagement

with its ratchet without interfering with the oscillations of the lever, and means controlled by said oscillations for automatically disengaging the stop from the pawl, for the purpose set forth.

3. In a fare-register, the combination with the indicator-ratchet, its actuating-lever, and a two-armed pawl pivoted thereto, one of said arms normally engaging said ratchet; of a spring-actuated ratchet-stop adapted to be moved by its spring into engagement with the second arm of the aforesaid pawl, a spring-actuated locking-lever normally in engagement with the ratchet-stop, and means operated by hand for moving said locking-lever out of engagement with the stop, whereby the latter is automatically returned into its engagement with its locking-lever by the indicator-ratchet pawl through the oscillations of its lever, for the purpose set forth.

4. The combination with the ratchet *c*, the lever *a*, and the two-armed pawl *d*; of the ratchet-segment *f*, its locking-lever *g* and the cam-shaft *h*, said parts arranged and operating substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 14th day of January, 1896.

FRIEDRICH WILHELM GUSTAV BRUHN.

Witnesses:

W. HAUPT,

CHARLES H. DAY.