

No. 823,597.

PATENTED JUNE 19, 1906.

L. GRILLON.
STATION INDICATOR.
APPLICATION FILED JULY 31, 1905.

Fig. 1.

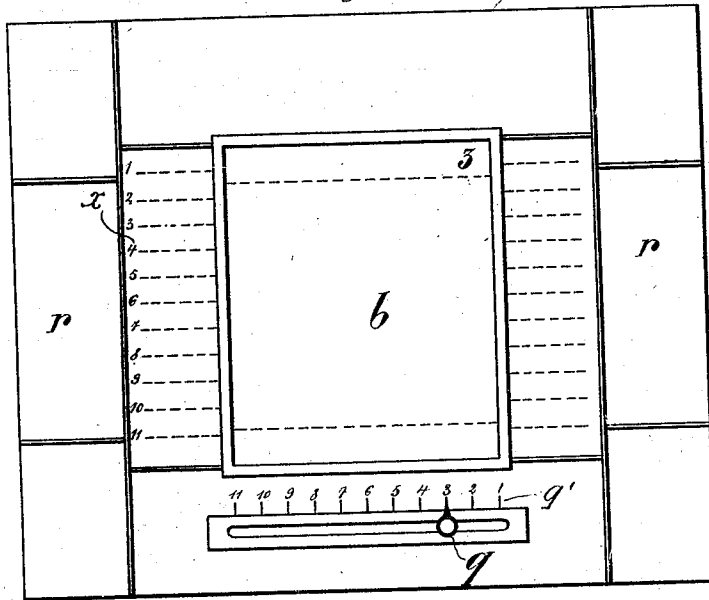
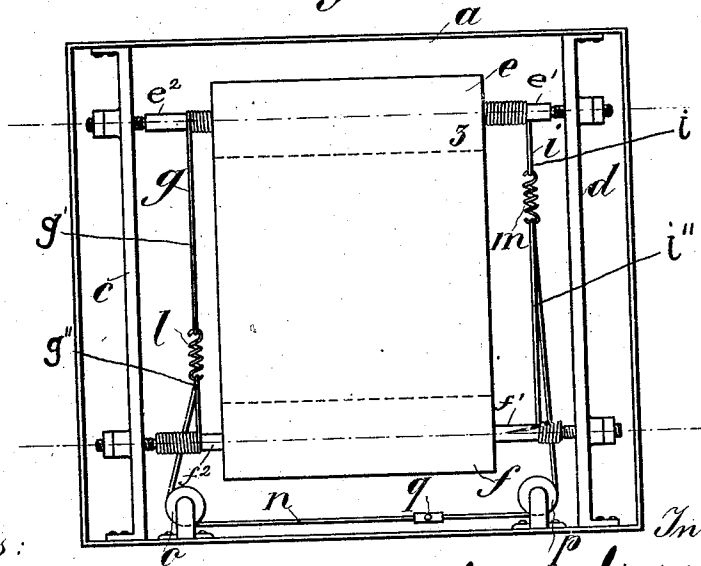


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

LÉON GRILLON, OF LAUSANNE, SWITZERLAND.

STATION-INDICATOR.

No. 823,597.

Specification of Letters Patent.

Patented June 19, 1906.

Application filed July 31, 1905. Serial No. 272,044.

To all whom it may concern:

Be it known that I, LÉON GRILLON, of Lausanne, Canton de Vaud, Switzerland, have invented a new and useful Improvement in Station-Indicators; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to an improved device for inclosing large quantities of matter of reference in a compact form, such as a casing, and in providing the same with mechanism on which said matter is mounted, serving when operated to expose portions of said matter to view, the invention being especially serviceable for railroad and steamship time-tables or the like.

To this end my invention consists in the provision of a casing provided in its front wall with an opening or transparent portion abreast of which a strip or band of paper is adapted to be moved, the said strip or band being divided into sections containing time-tables of the different railroad or steamship lines, and wherein rollers are provided about which the strip or band is trained, the said rollers being connected with an index-finger or like device accessible from the exterior of the casing and connected with and designed to operate the rollers. The said index-finger desirably registers with a series of numerals or signs which are reproduced on the strip to identify sections thereof, the said casing also having like numerals or signs, together with the name of the steamship or railroad line opposite thereto, enabling the user to first ascertain the number of the time-tables he wishes to inspect and to thereupon move the index-finger to register with a like number, which operation brings the desired time-table abreast of said opening.

The invention further consists in the manner of connecting and operating the rollers from said index-finger.

In the drawings, Figure 1 is a front elevation of a device embodying the main features of my invention. Fig. 2 is a like view with the front wall removed.

The strip or band *b* upon which the time-table is printed is trained about rollers *e* and *f*, which are mounted in the casing *a* in a manner to cause said strip to travel behind and abreast of an opening formed in the front wall, which opening may be closed by glass or any transparent material. The strip *b* is divided into sections approximately the size of the opening, as indicated by dotted

lines, each of which sections constitute a time-table or a portion thereof, each section being provided with numerals, section 3 of the strip being herewith shown. The said rollers *e* and *f* are provided with spindles *e'* *e''* *f'* *f''*, which are adjustably mounted upon conical bearings in supports *c* and *d*. In order to effect rotation of the rollers *e* and *f* in unison and to wind up the strip *b* on one roller as fast as it is paid out from the other, there is provided a pair of cords or cables *g* and *i*, each of which, as shown, is in two parts or sections *g'* *g''* and *i'* *i''*, which are connected at points between the spindles by spiral springs *l* and *m*. It will be understood that any flexibly-acting operating means for the spindles may be substituted for the cords and springs shown and that such equivalent devices would be within the scope of my invention as defined by the appended claims. The ends of the sections *i'* *i''* are wound about the spindles *e'* and *f'* in opposite directions, and likewise the ends of the cord-sections *g'* and *g''* are wound about the spindles *e''* and *f''* in opposite directions, the upper section *g'* being wound about the spindle *e''* in a direction opposite to the winding of the upper section *i'* about the spindle *e'*, the lower sections *g''* and *i''* of the cord being reversely wound about the spindles *f'* *f''*. By this reverse winding the cords *i* and *g* travel in opposite directions, so that a downward pull upon the cords *i* will cause an upward travel to the cords *g*. By means of this arrangement the cords when tightened will insure a positive and synchronous movement of the rollers and will prevent the strip *b* from becoming slack. The springs *l* and *m* serve as tension devices to maintain the strip taut.

An operating-cord *n* is provided which, as shown, trains about rollers *o* and *p*, anchored on the lower wall of the casing *a*, the upper ends of said cord being secured to the springs *l* and *m*. A button *q*, provided with an index-finger, is carried by the cord *n* and projects through a slot in the front wall of the casing in a manner to register with a series of numerals *q'*, corresponding with the numerals designating sections or divisions of the strip *b*. A series of numerals *x*, corresponding with the numerals *q'* and those of the strip *b*, are arranged on the front wall of the casing, beside which the names of the railroad or steamship lines are printed.

For purposes of illustration the strip *b* is divided into eleven sections, although a

greater or less number may be employed. When it is desired to examine a time-table or one of the sections or subdivisions of the strip *b*, the number of such section will be obtained from the numerals *x* opposite the name of the railroad or steamship line. The index-finger *g* will next be moved to register with a corresponding number, thereby rotating the rollers *e* and *f* in a manner to bring the desired section opposite the opening of the casing. The circumference of each of the rollers *e* and *f* will be substantially equal to the length of the opening in the front wall, and the circumference of the spindles and the space between the numerals *g'* will be equal. Thus when the finger *g* is moved from "2" to "3" the section 2 will be completely wound about roller *f*, bringing section 3 abreast of the opening. The spaces *r* of the front wall of the casing may be advantageously used for advertisements, or if it is desired to make a more compact structure the casing may be reduced in size.

What I claim is—

1. An apparatus of the class described comprising a casing provided with an opening, a band on which printed matter is disposed, rollers operating said band abreast of said opening, said rollers having spindles rotatively mounted, cords each wound upon said spindles in opposite directions and each cord being made in a plurality of sections, springs connecting the ends of the sections of said cords, an operating-cord connected with said springs, rollers for said operating-cord, and a button or the like on said cord adapted to project through suitable slots in the casing, said casing having the subject-matter of the band tabulated thereon and each tabulation identified by suitable signs or numerals, corresponding signs or numerals being located adjacent said slot, substantially as described.

2. An apparatus of the class described comprising a casing provided with an opening, a band on which printed matter is disposed, rollers operating said band abreast of said opening, cords for opposite ends of said rollers, each cord having its ends wound thereon in opposite directions, the winding of said cords being reversed with respect to each other, and a cord for operating said band in opposite directions.

3. An apparatus of the class described comprising a casing provided with an opening, a band on which printed matter is disposed, rollers operating said band abreast of said opening, cords for opposite ends of said rollers, each cord having its ends wound on

the rollers in opposite directions, the winding of said cords being reversed with respect to each other, tension means applied to said cords, and an operating-cord secured to said tension means for operating said band in opposite directions.

4. An apparatus of the class described comprising a casing provided with an opening, a band on which printed matter is disposed, rollers operating the band abreast of said opening, cords each wound on said rollers in opposite directions and each cord being made in a plurality of sections, springs connecting the ends of said cord-sections, an operating-cord connected with said springs, said casing having the subject-matter of the band tabulated thereon and each tabulation identified by suitable signs or numerals, corresponding signs or numerals adjacent said operating-cord, and a suitable pointer carried by said cord for registering with said last-mentioned numerals or signs.

5. An apparatus of the class described comprising a casing provided with an opening, a band on which printed matter is disposed, rollers operating said band abreast of said opening, mechanism operatively connecting two adjacent ends of said rollers and operating in one direction, mechanism operatively connecting the remaining two ends of said rollers and operating in a direction reverse to that of said first-mentioned mechanism, and a controlling device connected with the said oppositely-operating mechanisms to operate the same in reverse directions and effect movement of the band abreast of said opening.

6. An apparatus of the class described comprising a casing provided with an opening, a band on which printed matter is disposed, rollers operating said band abreast of said opening, yieldingly-acting mechanism operatively connecting two adjacent ends of said rollers and operating in one direction, yieldingly-acting mechanism operatively connecting the remaining two ends of said rollers and operating in a direction reverse to that of said first-mentioned mechanism, and a controlling device connected with the said oppositely-operating mechanisms, said mechanisms serving to maintain the band taut upon the rollers.

In witness whereof I have hereunto set my hand in presence of two witnesses.

LÉON GRILLON.

Witnesses:

PHILIPPE BÉGUIN,
WALTHER SOMMER.