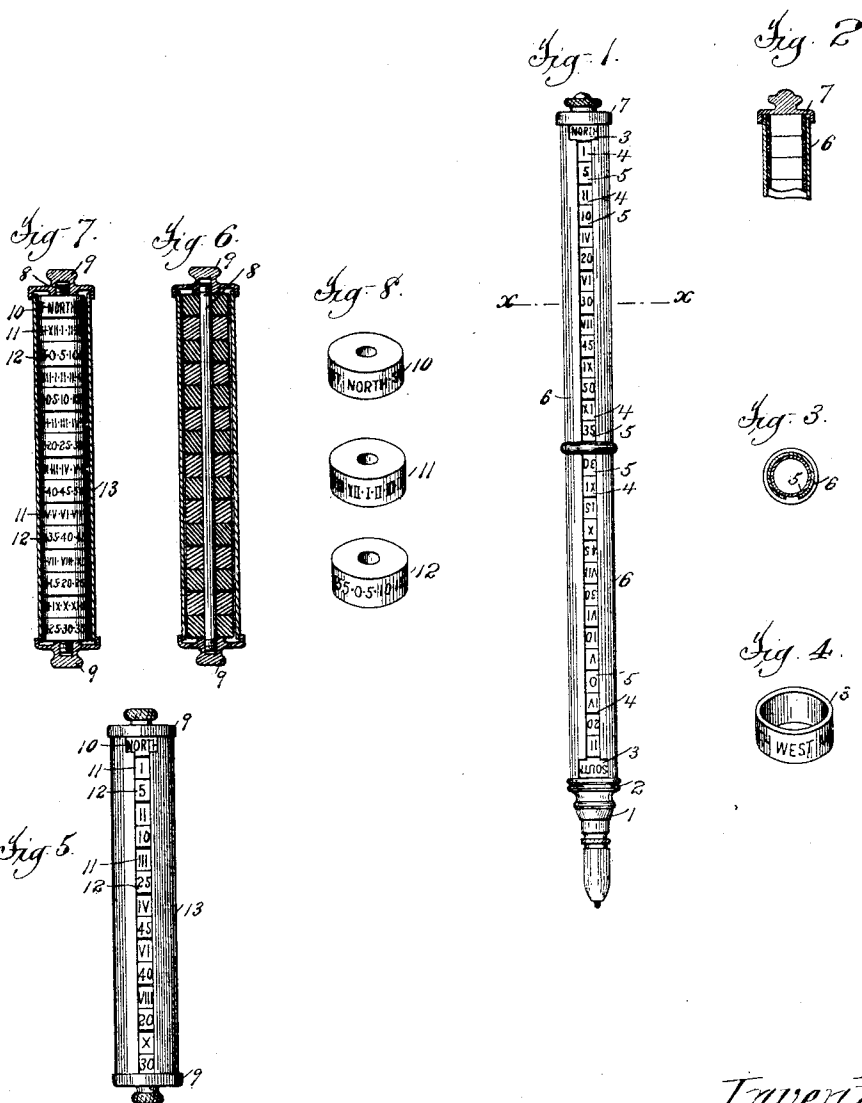


(No Model.)

J. I. COVINGTON.
PERPETUAL TRAIN TIME TABLE.

No. 483,138.

Patented Sept. 27, 1892.



Witnesses:
Geo. H. Bott
M. C. Pinckney

Inventor:
John I. Covington
per
Wm C. Behrens,
att'y

UNITED STATES PATENT OFFICE.

JOHN I. COVINGTON, OF BROOKLYN, NEW YORK.

PERPETUAL TRAIN TIME-TABLE.

SPECIFICATION forming part of Letters Patent No. 483,138, dated September 27, 1892.

Application filed September 3, 1891. Serial No. 404,606. (No model.)

To all whom it may concern:

Be it known that I, JOHN I. COVINGTON, a citizen of the United States, and a resident of Brooklyn, Kings county, New York, have invented a new and useful Improvement in Perpetual Train Time-Tables, of which the following is a specification.

My invention relates to a perpetual train time-table.

10 The object of my invention is to construct a portable device of such form and size as to be conveniently carried in a vest or coat pocket and so arranged that the time of departure or arrival of a series of trains may be indicated thereon and be capable of alteration to correspond with the periodical changes in the railroad time-tables. I accomplish this object by the construction shown in the drawings, and hereinafter particularly described and claimed.

20 In the accompanying drawings, forming part of this specification, Figure 1 represents an ordinary pencil with movable lead to which I have applied my invention. Fig. 2 is a longitudinal section through the upper part of Fig. 1, omitting the pencil to better illustrate the construction. Fig. 3 is a transverse cross-section on line *x x* of Fig. 1, omitting pencil. Fig. 4 illustrates one of the several rings encircling the pencil, the same being all alike, except as to the matter printed, stamped, or engraved thereon. Fig. 5 represents my invention in another form. Fig. 6 is a longitudinal cross-section of the same. 35 Fig. 7 represents the device with casing only in section to show the disks more clearly; and Fig. 8 shows the several disks used for indicating direction, hour, and minute.

Referring to the drawings, I show in Fig. 1 an ordinary pencil with movable lead, the metal point 1 of which is made of somewhat larger diameter at 2 to afford an abutting surface for the indicating-rings and slotted sleeve hereinafter described. Surrounding the body of the pencil, as a core, are a series of rings 3, 4, and 5, which fit thereon with slight friction, so that they can be readily revolved by hand.

50 The upper ring 3 in Fig. 1, as well as the lower ring in the same figure, have the words "North," "South," "East," and "West" engraved or indicated in any manner thereon to

show to which direction the train-times indicated below the same relate. Below each one of these direction-indicating rings 3 are arranged several sets of hour and minute indicating rings 4 and 5. The number of these sets is not limited and may be more or less than shown. The rings 4 are the hour-indicating rings, the figures "1" to "12" being indicated thereon. The rings 5 are the minute-indicating rings, the numerals "0 5 10 15 20 25 30 35 40 45 50 55" being placed thereon to indicate approximately—i. e., within two minutes as a maximum—the train-time. For example, if the train should leave seven minutes past the hour the minute-disk could be turned to indicate five minutes, or if the train-time should be eight minutes past the hour the minute-disk could be turned to indicate ten minutes. Thus in both cases the device can be used to indicate the right time within two minutes, although the interval of time on the disks 5 is five minutes. These hour and minute indicating rings are placed together in sets, the latter under the former, as clearly indicated in Fig. 1, as many sets being used as desired. As shown in said Fig. 1, one half of the length of the pencil is utilized for indicating train-time in one direction and the other half for the train-time in the opposite direction. Surrounding the series of rings is a slotted shell or cylinder 6, which may merely rest at its lower end against the enlargement 2 of the point, or it may be fastened thereto by soldering or in any other manner. Its upper end is screw-threaded for receiving a screw-threaded cap 7, Fig. 2, which screws over the same. This slotted cylinder 6 is made somewhat shorter than the combined height of all the rings, so that when the cap 7 is screwed in place it may exert a pressure on the rings, and thus prevent them from accidental turning or displacement. To adjust the device in the first place or to shift any of the rings when required, the cap 7 is first loosened to relieve the pressure and then the disk or disks to be shifted are turned by hand until the desired numerals appear opposite the slot, when the cap is again tightened to hold the series of rings in place.

The cap 7 is provided with a downwardly-projecting flange which encompasses the end of the slotted cylinder and fits very closely

to the same, so as to retain the cylinder in its proper position relative to the rings. In tightening the cap after the rings have been adjusted, as described, the thumb of the left hand is pressed on the uppermost ring through the slot in the cylinder, while the right hand is engaged in screwing down the cap, thus holding both rings and surrounding cylinder stationary. After the rings have been thus locked in place the thumb can be removed, as the friction between the cylinder and the flange of the cap will retain the former in position, so that its slot cannot shift its position.

In the construction shown in Figs. 5 to 8, inclusive, a central rod 8 forms the core for the rings 10 11 12, which latter have the same matter on their periphery as those used in Fig. 1 and are capable of turning on the rod which passes through the openings in the same. Two caps 9 are provided, one for each end of the rod, which latter is screw-threaded, and the series of rings are thus clamped between the two opposing caps. A slotted sleeve or cylinder 13 surrounds the rings, the same as in Fig. 1, the flanges on the caps encompassing the cylinder. I have shown in Figs. 5 and 7 the time-table arranged for one direction only; but it may of course be arranged to show the times of departure for both directions in same manner as indicated in Fig. 1. Instead of utilizing a pencil as a core a penholder may be used or any other instrument that will serve as a rod or core for the rings. This perpetual pocket train time-table is a very handy

and convenient device to carry in the pocket, it condenses the time-table required by the user into a very compact space, and it can be readily altered whenever required.

I am aware of United States Patent No. 155,741 to Mernan and Grant, dated October 6, 1874, relating to an indicator attached to the side of a car, and I am also aware of United States patent to F. N. Chase, dated March 4, 1879, No. 212,789, relating to a railroad or post-office indicator arranged in the walls of a building; but to these constructions I lay no claim.

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

In a pocket time table or indicator, the combination, with a rod or core having a screw-threaded end, of indicating-rings revoluble thereon, a slotted cylindrical sleeve surrounding said rings, and a screw-threaded flanged cap encircling the sleeve in close frictional contact therewith to prevent rotation of sleeve and serving to press the rings together to prevent them from turning, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 31st day of August, 1891.

JOHN I. COVINGTON.

Witnesses:

WM. C. BEHRENS,
M. C. PINCKNEY.