(No Model.)

P. C. FISH & H. T. SULLIVAN.

ROTARY MECHANICAL DIRECTORY AND ADVERTISING MEDIUM.

No. 557,571. Patented Apr. 7, 1896.

Fig. IV.

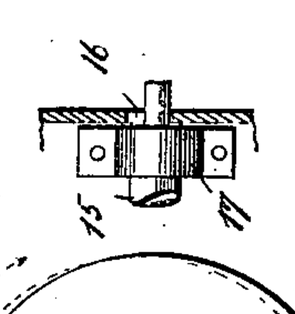


Fig. III.

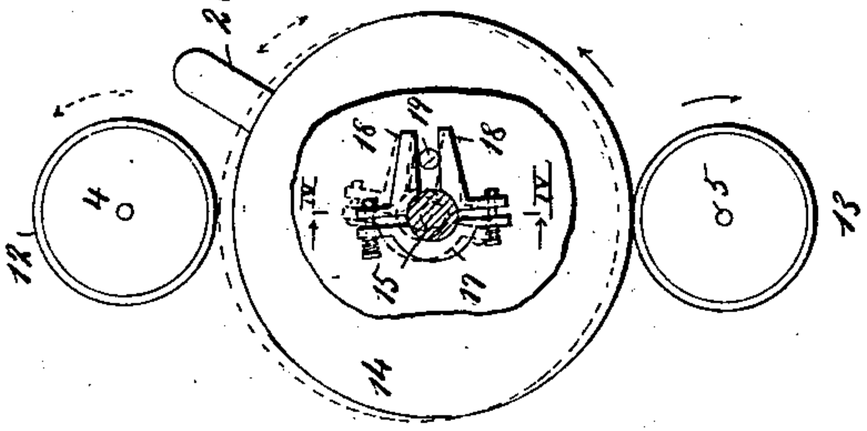


Fig. II.

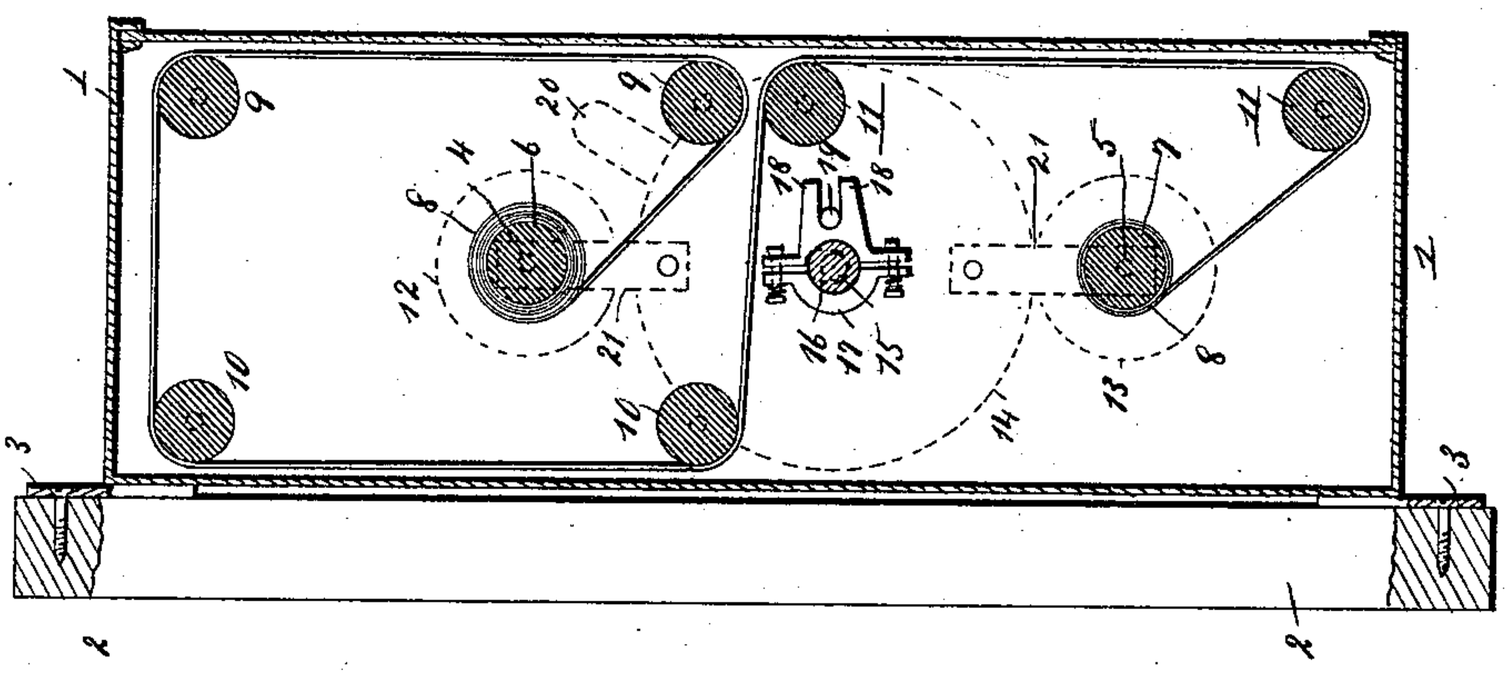
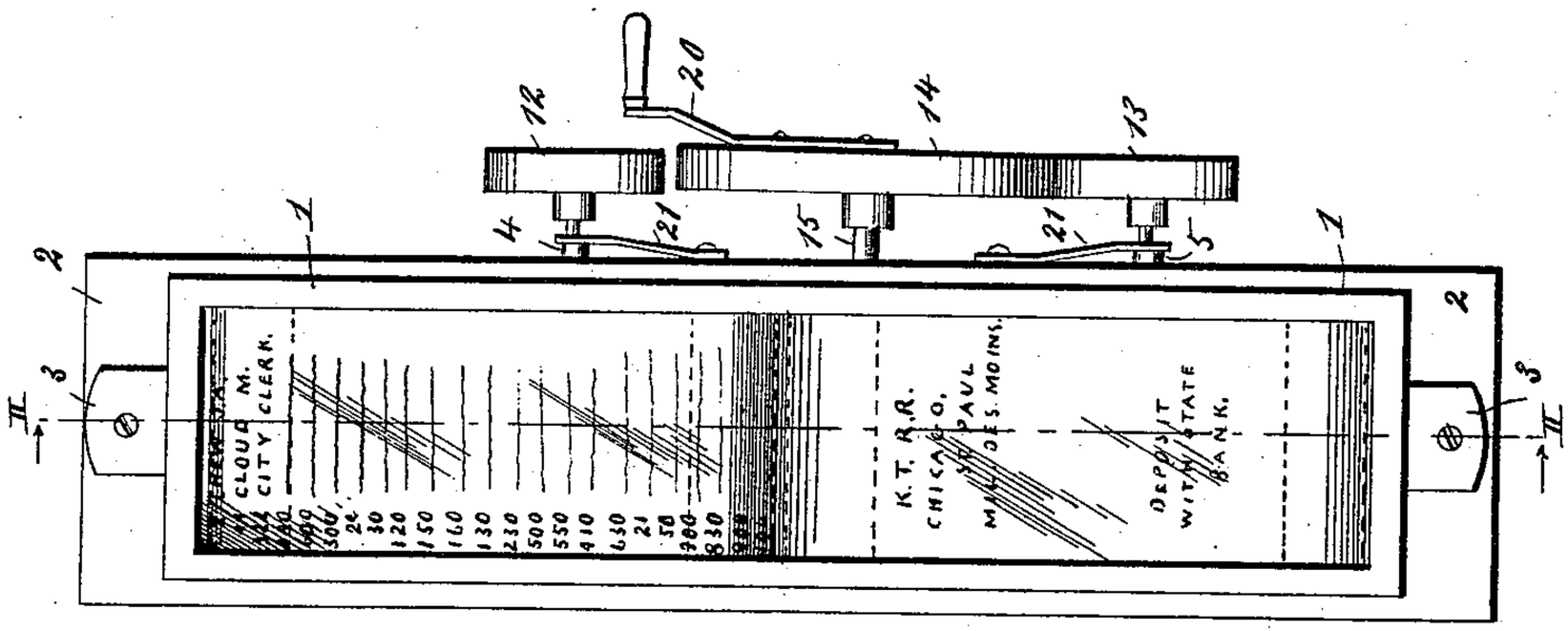


Fig. I.



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UNITED STATES PATENT OFFICE.

PHILMER C. FISH AND HENRY T. SULLIVAN, OF ST. JOSEPH, MISSOURI.

ROTARY MECHANICAL DIRECTORY AND ADVERTISING MEDIUM.

SPECIFICATION forming part of Letters Patent No. 557,571, dated April 7, 1896.

Application filed March 28, 1895. Serial No. 543,559. (No model.)

To all whom it may concern:

Be it known that we, PHILMER C. FISH and HENRY T. SULLIVAN, of St. Joseph, in the county of Buchanan, in the State of Missouri, have invented a certain new and useful Rotary Mechanical Directory and Advertising Medium, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

Our invention relates to a certain new and useful rotary mechanical directory and advertising medium; and our invention consists of certain features of novelty hereinafter described, and pointed out in the claims.

Figure I represents a front elevation of the device, showing the manner in which the directory and advertising matter are displayed therein. Fig. II represents a cross-section on the line II of Fig. I. Fig. III represents a detail view of the operating mechanism, showing the means by which the reverse motion is given thereto. Fig. IV represents a detail view of the driving-shaft and its oscillating bearing, taken on the line IV IV of Fig. III.

Similar numerals refer to similar parts throughout the several views.

1 represents the frame or casing, adapted to be secured to the bracket 2 or other suitable support by screws passing through the flanges 3. 4 and 5 represent shafts journaled in said casing, upon which are mounted the rollers 6 and 7. Upon said rollers is carried the roll or ribbon 8 upon which the matter of the directory and the advertising matter are printed, the matter of the directory being printed on one side of the ribbon and the advertising matter on the other side of the ribbon. The ribbon is carried from the roller 6 over the guide-rollers 9 in close proximity to the front of the casing, whereby the matter on one side of the ribbon is exposed to view, and thence over the intermediate rollers 10 in the rear of the casing and over the guide-rollers 11 to the roller 7, being by said guide-rollers 11 brought again in close proximity to the front of the casing and exposing to view the matter on the other side of the ribbon. Said rollers 6 and 7 are operated by the reversible friction-gearing illustrated in Fig. III, in which 12 represents a friction-wheel mounted on the shaft 4 of roller 6, and 13 represents a friction-wheel mounted on the shaft 15 of roller 7, said friction-wheels being adapted to impinge upon the perimeter of the drive-wheel 14 as said drive-wheel is revolved in one or the other direction. Said drive-wheel is mounted on the shaft 15, one end of which shaft is journaled in the casing. At the end of the shaft at which said drive-wheel is mounted said shaft works in a slot 16 in the casing and is provided immediately adjacent to the casing with the friction bearing-block 17 having the jaws 18 embracing the pin 19 fixed in the casing, said pin forming a pivot upon which said block acts, the friction of the bearing being adjustable and controlled by the tension-spring 17^a on the bolts by which said block is secured upon the shaft, so that as said wheel is revolved in one direction said block turns on said pin as a pivot until said wheel impinges upon one of the friction-wheels and said friction-wheel and the roller on the same shaft are revolved and the ribbon wound thereon, the shaft of the drive-wheel revolving in said bearing-block; and as said drive-wheel is revolved in the opposite direction said block turns on said pin until the drive-wheel impinges on the other friction-wheel, which, with the roller carried on its shaft, is revolved and the ribbon wound on said roller. Thus is obtained a reversible movement whereby by turning the drive-wheel in opposite directions the ribbon may be wound on either of said rollers, as may be desired, and which constitutes one of the peculiar features of our invention.

20 represents a crank on the drive-wheel, by which the same is operated. 21 represents springs bearing against the ends of the rollers 4 and 5 to restrain the actions of the rollers thereon and take up and prevent slack in the ribbon.

The front of the casing is preferably glass-covered to exclude dust and at the same time permit unobscured observation of the matter on the ribbon.

Having thus fully described our improvements, what we claim as our invention, and desire to secure by Letters Patent, is—

1. The combination with a suitable frame, of carrying-rollers journaled in said frame, guide-rollers and intermediate rollers journaled in the frame, a ribbon carried in said carrying-roller and passing over said guide and intermediate rollers as it is wound from one to the other of said carrying-rollers, suitable gearing carried on the shafts of said carrying-rollers, a drive-wheel mounted on a shaft one end of said shaft being journaled in the frame the other end operating in a slot in the frame, a bearing-block carried on said shaft, jaws on said bearing-block, and a pin in said frame embraced by said jaws and whereon said bearing-block is adapted to turn to bring said drive-wheel into engagement with the gearing operating one of said carrying-rollers as said drive-wheel is revolved in one direction and with the gearing operating the other carrying-roller as said drive-wheel is revolved in the opposite direction, substantially as set forth.

2. The combination with a suitable frame of carrying-rollers journaled in said frame, guide-rollers and intermediate rollers journaled in said frame a ribbon carried on said carrying-rollers and passing over said guide and intermediate rollers as it is wound from one to the other of said carrying-rollers, suitable gearing mounted on the shafts of said carrying-rollers, an independent rocking bearing-block, a support for said block upon which it is adapted to be rocked by the action of the drive-wheel, a shaft journaled at one end in the frame, and at the other end journaled in said bearing-block, means for controlling the friction between said bearing-block and its shaft so that as the action of the drive-wheel is reversed, said block will rock on its support, a drive-wheel mounted on said shaft adapted by rocking said bearing-block when revolved in one direction to engage the gearing of one of said carrying-rollers and when revolved in the other direction to engage the gears of the other carrying-roller, substantially as set forth.

3. The combination with a suitable frame of carrying-rollers journaled in said frame, guide-rollers and intermediate rollers journaled in said frame, a ribbon carried on said carrying-rollers, having matter printed on both its sides and in passing over said guide and intermediate rollers having both its sides presented to the front of the frame, as it is wound from one to the other of said carrying-rollers, friction gear-wheels mounted on the shafts of said carrying-rollers, a drive-wheel, a shaft upon which said drive-wheel is mounted, said shaft being journaled at one end in the frame and at the other end acting in a slot in the frame, a bearing-block forming a bearing for said shaft, jaws on said bearing-block and a fixed pin embraced by said jaws and upon which said bearing-block is adapted to rock to permit said drive-wheel to impinge upon one of said friction gear-wheels when revolved in one direction, and upon the other when revolved in the opposite direction substantially as set forth.

4. The combination with a wheel and its shaft of an independent rocking bearing-block, a support for said block upon which it is adapted to be rocked as the action of the wheel is reversed, and means for controlling the friction between said bearing-block and its shaft so that as the action of the wheel is reversed said block will be rocked on its support, substantially as set forth.

5. The combination with a wheel and its shaft of an independent rocking bearing-block, jaws on said block, a fixed support embraced by said jaws upon which said bearing-block is adapted to be rocked as the action of the wheel is reversed and means for controlling the friction between said bearing-block and its shaft so that as the action of the wheel is reversed said block will be rocked on its support, substantially as set forth.

6. The combination with a suitable frame, rollers journaled in said frame carrying a ribbon adapted to be wound from one to the other of the said rollers and suitable gear-wheels mounted on the shafts of said carrying-rollers, of a drive-wheel and its shaft and an independent rocking bearing-block a fixed support upon the frame for said bearing-block upon which it is adapted to be rocked as the action of the drive-wheel is reversed, and means for controlling the friction between said bearing-block and its shaft so that as the action of said wheel is reversed said block will be rocked on its support to cause said drive-wheel to engage one or the other of said gear-wheels as it is revolved in opposite direction to give reverse motion to said carrying-rollers substantially as set forth.

7. A rotary mechanical directory and advertising medium consisting of a combination with a suitable frame, carrying-rollers journaled in said frame, and a ribbon carried on said carrying-rollers adapted to be wound from one to the other thereof and having a directory printed on one side thereof and advertising matter on the other side thereof, of guide and intermediate rollers journaled in the frame over which said ribbon passes as it is wound from one to the other of said carrying-rollers, and so located that in its passage over the same the directory on one side of said ribbon is presented to view at one part of the front of the frame, and at the same time the advertising matter on the other side of said ribbon is presented to view at another part of the front of the frame, suitable gear-wheels mounted on the shafts of said carrying-rollers, a drive-wheel and its shaft, and an independent rocking bearing in which said shaft is journaled a fixed support upon the frame for said bearing-block upon which it is adapted to be rocked as the action of the

drive-wheel is reversed, and means for controlling the friction between the said bearing-block and its shaft so that as the action of said drive-wheel is reversed said block will be rocked upon its support to cause said drive-wheel when revolved in one direction to engage one of said gear-wheels and when revolved in the opposite direction to engage the other of said gear-wheels to reversibly operate said carrying-rollers, substantially as set forth.

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