

(No Model.)

F. J. PATTEN.
SYNCHRONOUS MULTIPLEX TELEGRAPHY.

No. 428,226.

Patented May 20, 1890.

Fig. 1.

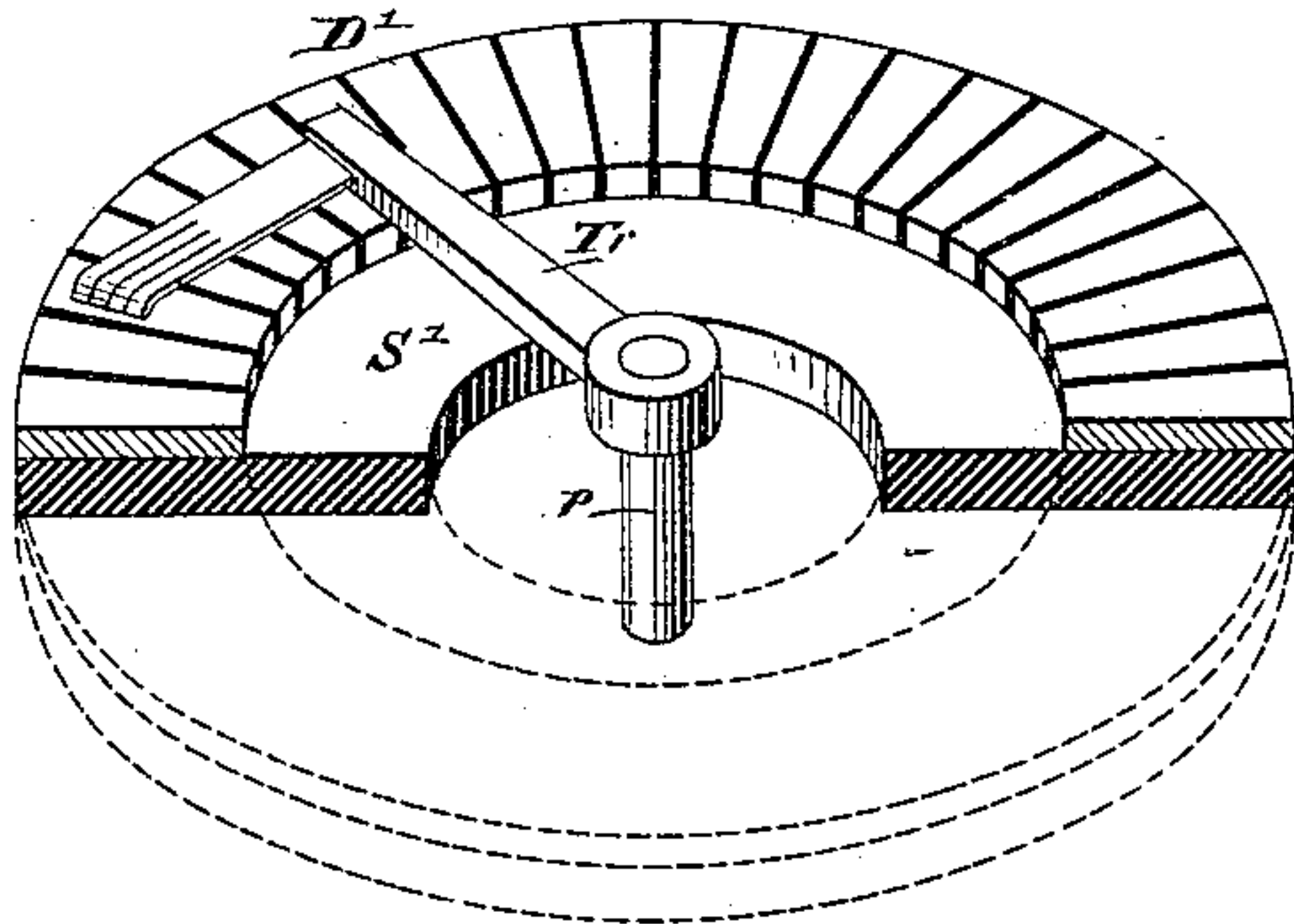
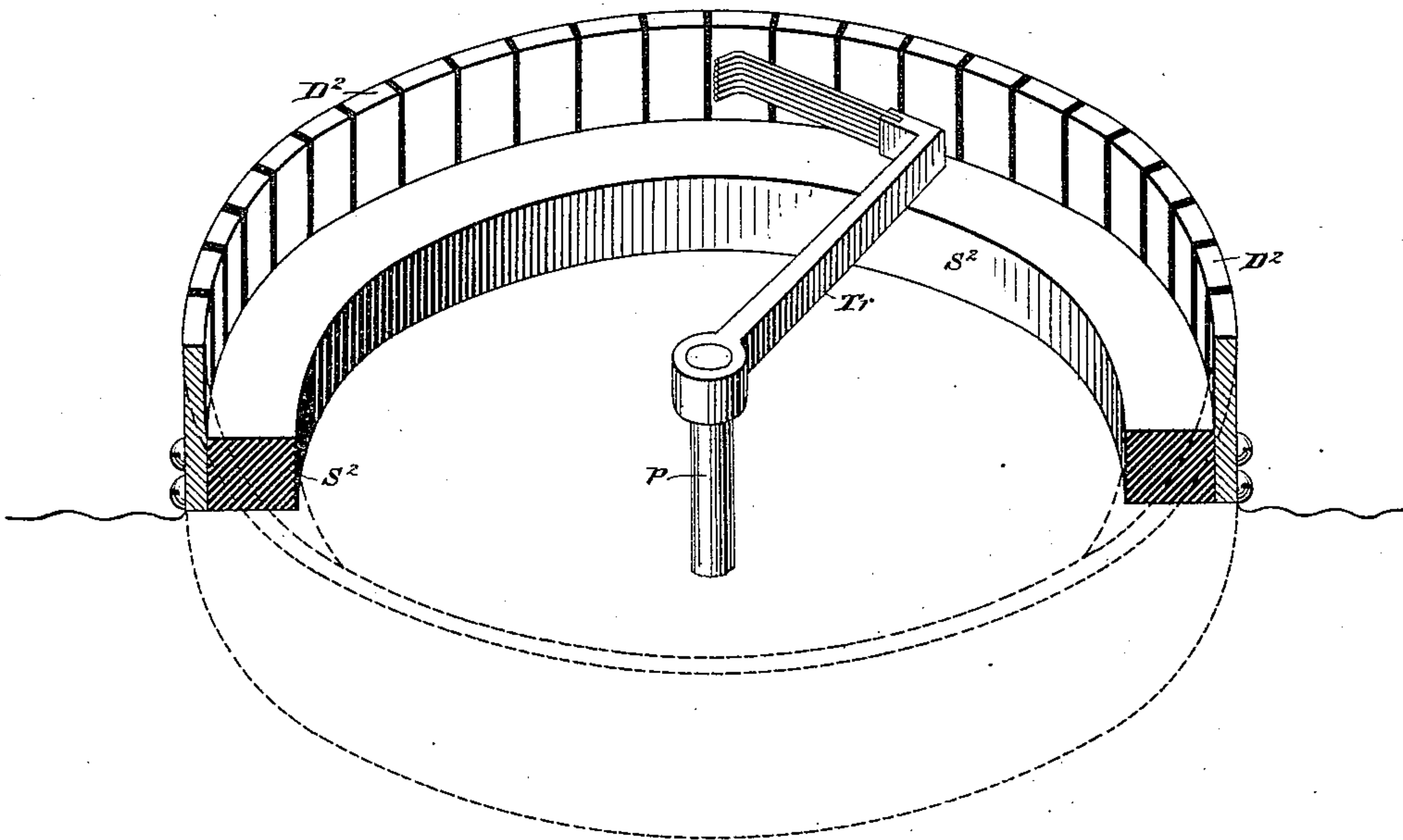


Fig. 2.



Witnesses

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SYNCHRONOUS MULTIPLEX TELEGRAPHY.

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Application filed January 10, 1890. Serial No. 336,582. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS JARVIS PATTEN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have made a new and useful Invention in Synchronous Multiplex Telegraphs, of which the following specification constitutes a full and exact description, reference being had to the accompanying drawings.

My invention relates particularly to improvements in distributors of synchronous multiplex or analogous apparatus; and its objects are, first, to provide a distributor in which there shall be always perfect electrical contact between the revolving trailer-brush and the distributing-segments; second, to insure accurate discontinuity between the brush and the last segment over which it passes as it rotates before making operative continuity with the next succeeding segment, thereby avoiding a division of the signaling-current between two sets of apparatus, and, third, simplicity and cheapness of construction. I accomplish these objects by the device hereinafter described, but particularly pointed out in the claims which follow.

Referring now to the drawings, Figure 1 is a broken perspective view of an ordinary well-known "sunflower" distributor, such as are used in printing-telegraphs, and with synchronous multiplex apparatus. Fig. 2 is a similar view of my improved form of distributor.

In Fig. 1 the sunflower segments D' are arranged, as usual, on a disk S' , and insulated from each other, the circuit-connections to the synchronous or other apparatus being omitted in both figures of the drawings, as superfluous here.

Tr is the trailer-arm carried by the driven shaft p . The swinging brush in the end of trailer-arm Tr rests flatly on the segments D' , and it is a fact that continued adjustment of the brush is required to obtain from this apparatus the best results. If the brush becomes slightly askew, the incoming currents are divided between the two adjoining segments as it passes from one to another. The

pressure of the brush being constant, increased speed renders it liable to jump and mar the signals. I overcome quite fully these objections by the distributor shown in Fig. 2, in which the distributor-segments D^2 are mounted on the outer surface of a ring S^2 and insulated from each other, as before. These segments, being simply rectangular metallic blocks, can be made much more cheaply and expeditiously than can the sunflower type shown in Fig. 1, and are secured directly at their lower end to the ring S^2 by screws, so that they may be quickly and easily removed.

The trailer-arm Tr , mounted as before on the rotary shaft p , carries a contacting brush bent at its outer end, as shown, so that the angle of the bend bears squarely on the inner faces of the segments D^2 , and will be out of absolute contact with any segment as it rides over the insulating-space between it and the next succeeding segment. The segments D^2 may be insulated by simple air-spaces, if desired, and secured to the ring S^2 by any preferred means, my invention being directed more particularly to the arrangement of said segments with the trailer-brush bearing against them on their inner faces, whereby centrifugal force gives increased contact between said parts. Said segments may be arranged on the inner face of the ring S^2 , if desired, and the brush be of any preferred form.

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

1. In a distributor for synchronous multiplex telegraphs or analogous apparatus, a series of distributing-segments arranged in cylindrical form around a rotary axis carrying a brush which bears against the inner cylindrical faces of the segments, substantially as described.

2. A distributor for synchronous multiplex telegraphs or analogous apparatus, consisting of a series of conducting-segments secured at their lower ends to the inner face of a cylindrical supporting-frame, the free ends forming a cylindrical surface against which the

distributing-trailer bears, substantially as described.

3. A distributor consisting of a cylindrical supporting-frame having distributing-segments arranged around its outer face, in combination with a rotary shaft carrying a trailer-brush having contact with the inner cylin-

dricafaces of the distributing-segments, substantially as described.

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Witnesses:

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