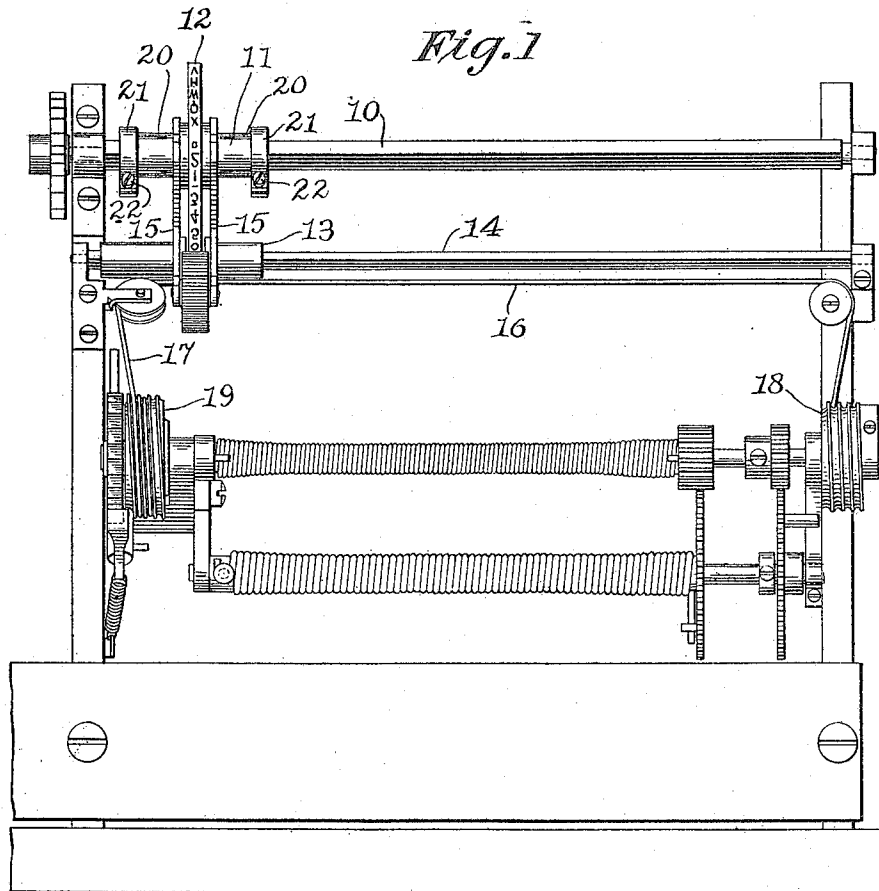
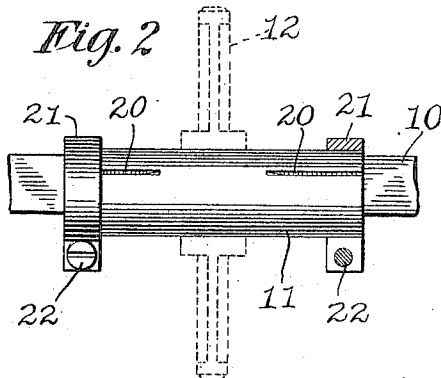
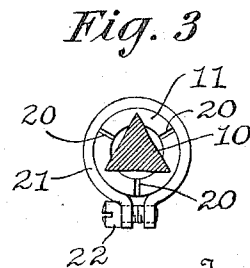


G. S. HILTZ.
TYPE WHEEL SLEEVE FOR PRINTING TELEGRAPH RECEIVERS.
APPLICATION FILED AUG. 31, 1916.

1,220,844.

Patented Mar. 27, 1917.



Inventor

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By his Attorneys

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UNITED STATES PATENT OFFICE.

GEORGE S. HILTZ, OF NEW YORK, N. Y., ASSIGNOR TO THE STOCK QUOTATION TELEGRAPH COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

TYPE-WHEEL SLEEVE FOR PRINTING-TELEGRAPH RECEIVERS.

1,220,844.

Specification of Letters Patent.

Patented Mar. 27, 1917.

Application filed August 31, 1916. Serial No. 117,861.

To all whom it may concern:

Be it known that I, GEORGE S. HILTZ, a citizen of the United States, residing at New York, county of Kings, and State of New York, have invented certain new and useful Improvements in Type-Wheel Sleeves for Printing-Telegraph Receivers, of which the following is a full, clear, and exact description.

10 This invention relates to printing telegraph receivers of the class known as page-printers, and pertains particularly to the type-wheel and type-wheel shaft. The parts mentioned are constructed to rotate together, but permit axial movement of the wheel on the shaft to provide the letter-spacing. For this purpose the shaft is usually angular or polygonal in cross section, preferably triangular, and the type-wheel is mounted on a sleeve of like contour on the inside.

The shaft and sleeve are commonly made of hardened steel to minimize wear, but the sleeve travels back and forth on the shaft many times a day; and although the instrument is protected from dust and dirt as far as possible by means of a glass dome or cover, the net result is that the parts show marked wear in a comparatively short time, with the result that the alinement of the printing is greatly affected. Moreover, when the parts once become at all worn the wear is apt to proceed at a faster rate, as some of the dust or grit that may find lodgment in the shaft is not scraped off in advance of the sleeve but finds its way under the latter because of the slight clearance between the two.

I have accordingly been led to devise my present invention, which has for its object to provide means whereby wear on the shaft and sleeve can be taken up wherever desired, thereby restoring the alinement to its original accuracy. A further object is to provide for the purpose indicated, means that can be adjusted readily and accurately by the ordinary "repair man" at the place where the instrument is installed, thus making it unnecessary to bring the machine to the shop,—a proceeding which would involve either a suspension of service to the customer or the temporary installation of a new machine.

One form of the invention, which con-

sists in the novel features hereinafter described, is illustrated in the accompanying drawing, in which Figure 1 is a front view of a portion of a Burry-Hiltz receiver, showing the type-wheel and its shaft.

Fig. 2 is an enlarged detail view of the type-wheel sleeve and a portion of the angular shaft on which it slides, the type-wheel being shown in dotted lines, and

Fig. 3 is an end view of the same, the type-wheel not being shown.

In the embodiment illustrated the type-wheel shaft 10 is triangular in cross section, and the sleeve 11, on which the type-wheel 12 is rigidly mounted, is in the form of a tube with inner V-shaped grooves, giving it in effect a correspondingly triangular form so that the wheel will rotate with the shaft but can also slide axially thereon to effect the better spacing, as will be readily understood. This axial movement of the sleeve and wheel is produced by a sliding but non-rotating sleeve 13, on a bar or shaft 14 below shaft 10, which is provided with arms embracing sleeve 11 on opposite sides of the type-wheel, so that as the sleeve 13 slides on its shaft 14 the other sleeve, and the type-wheel, will move in unison on its shaft 10. The movement of the sleeve 13 is effected by means of the opposite extending cords 16, 17, which are wound upon drums 18, 19. These latter, and the mechanism shown for actuating them, are fully described in my prior Patent No. 962,431, dated June 28, 1910.

For the purpose of taking up wear on the sleeve 11 and shaft 10, the former is split axially at each end as shown at 20, the slits being preferably midway between the V-shaped grooves that fit the edges of the shaft, and extending far enough toward the center of the sleeve to give the tongues thus formed sufficient flexibility. Around the ends of the sleeve are split clamping rings 21, having their ends bent radially outward and connected by take-up screws 22. Now, when the parts show wear it is only necessary for the attendant to give the binding screws a slight turn, thereby drawing the rings more tightly around the ends of the sleeve, which results in bending the tongues radially inward, to a slight extent. The close fit between the sleeve and the shaft is thus restored and the wheel can no longer

move in a rotary direction on the shaft with consequent derangement of the alinement.

It is to be understood that the invention is not limited to the exact construction shown herein but can be embodied in forms without departure from its spirit.

I claim:

1. In a printing telegraph receiver, in combination, a type-wheel shaft of angular cross section, a sleeve of corresponding inner cross section mounted on the shaft to slide thereon but rotate therewith and having its ends slitted axially to provide inwardly yielding tongues, a type-wheel fixed on the sleeve, and means encircling the ends of the sleeve to force the said tongues radially inward, for the purpose set forth.

2. In a printing telegraph receiver, in combination, a type-wheel shaft of angular cross section, a type-wheel sleeve of corresponding inner cross section mounted on the shaft to slide thereon but rotate therewith and having its ends slitted axially to provide inwardly yielding tongues, and split clamping rings encircling the ends of the sleeve and provided with take-up means to draw the ends of the rings together whereby

said yielding tongues may be forced inwardly, for the purpose set forth.

3. In a printing telegraph receiver, in combination, a type-wheel shaft of angular cross section, a type-wheel sleeve of tubular form slidably mounted on the shaft, having inner grooves to fit the edges of the shaft and having its ends slitted axially between said grooves, and take-up rings encircling the ends of the sleeve, for the purpose set forth.

4. In a printing telegraph receiver, in combination, a type-wheel shaft of angular cross section, a type-wheel sleeve of corresponding inner cross section slidably mounted on the shaft and having its ends slitted to provide inwardly yielding tongues, split clamping rings encircling the ends of the sleeve and having their ends extending radially outward, and take-up screws in the ends of the rings to draw the rings around the ends of the sleeve and force the said tongues radially inward, for the purpose set forth.

In testimony whereof I hereunto affix my signature.

GEORGE S. HILTZ.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."