

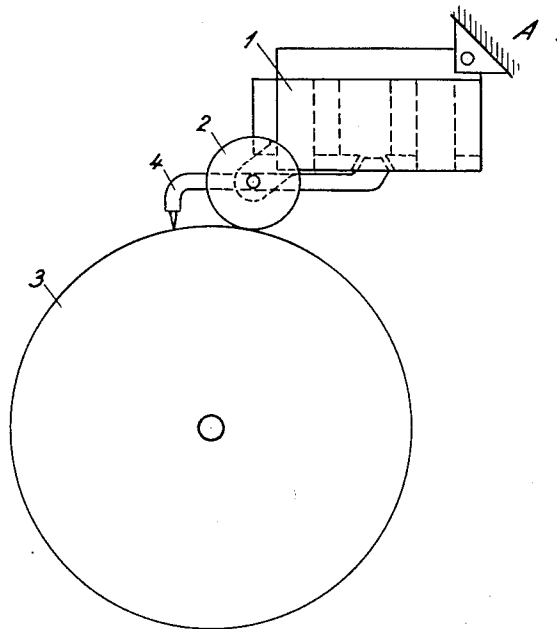
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PICTURE TELEGRAPH DEVICE

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PICTURE TELEGRAPH DEVICE

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5 Claims. (Cl. 178—13)

The invention relates to arrangements for electrically transmitting images or pictures, and particularly to improvement with respect to the picture reproduction in such arrangements.

It is well known in the electric picture transmission to effect the reproduction of the image points by electromagnetic devices similar to loud-speaker systems in such a manner that a stylus which is associated with a lever is appressed onto the picture drum. An essential requirement thereby is the continuous maintenance of a constant spacing between the stylus and the drum, as otherwise either the stylus or the picture likely would be destroyed or damaged, or the movement of the stylus would be insufficient for exerting the necessary pressure against the paper fixed on the drum. The known arrangements of this type provide the printing equipment and the picture drum fixedly journaled independently of one another. Consequently, there is only one single possibility for adjustment between the tip of the stylus and the picture drum.

The present invention, therefore, proposes to provide the printing equipment in the shape of a one-armed lever pivotally mounted at one end, while its other end is movably supported on the picture drum. A constant spacing is thereby secured between the printing equipment and the drum even in cases of unsymmetric movements thereof. A scanning of the picture is obtained by means of a vibratory motion superposed on the pictural movement of the stylus, so as to prevent the picture equipment from being elevated from the paper attached to the drum in cases that longer lines are to be reproduced, as such separation would cause troubles in the reproduction.

The present invention will be fully understood from the following description taken in conjunction with the attached drawing which schematically illustrates one embodiment of the invention.

A printing equipment 1 is pivotally mounted at a point A. The free end of the equipment 1 carries a roller 2 which is caused to rotate due to the frictional contact with the rotating picture drum 3. The space between the stylus 4 and the drum 3 may be adjusted to any desired value by the agency of any suitable arrangement (not shown). The picture is reproduced by rotating the drum which in turn causes the roller to rotate, while the entire printing equipment is shifted in an axial direction along the drum. The space between the stylus and the paper of the drum is thereby permanently constant, even

in cases of an unsymmetric movement of the drum, as the printing equipment is elevated if the drum is not uniformed. However, certain difficulties may arise in events that longer lines are to be reproduced, as the roller 2 would be elevated from the drum by the lever of stylus 4 so that the contour of the drum would not be closely followed by the roller. The weight of the printing equipment thus would be carried by the stylus point and would cause the stylus to break into the paper at each irregularity of the drum with the result that either the stylus or the paper would be destroyed. An additional vibratory motion is therefore superposed on the movement of the stylus, as proposed according to the invention, for instance, by applying an alternating current of arbitrarily selected scanning frequency to the printing equipment which may be an electromagnetic or electrodynamic device. On the other hand, the vibratory motion may be effected by the scanning of the image at the transmitter device in such a way that the occurrence of longer dash lines is obviated. It is clear then that these additional transmitted vibrations will operate on the receiving magnet 7 similarly to vibrations locally generated. The rollers 2, therefore, are not elevated from the paper when longer lines are to be reproduced, on the contrary, the stylus merely strikes separate discrete blows against the paper on account of its minor mass in comparison with that of the printing equipment.

The new printing telegraph arrangement according to the invention permits reliable reproduction of pictures even under the most unsuitable conditions, because a continuous constancy of the spacing between the stylus and the paper is attained by supporting the printing equipment on the picture drum.

What is claimed is:

1. A picture telegraph arrangement for reproducing a picture from picture impulses comprising a lever pivoted at one end, a mechanically operating printing equipment mounted on said lever, a picture drum, means at the other end of said lever resting on said drum for conveying said printing equipment over said drum, a single-pointed stylus-shaped pressure member mounted on said lever for relative movement with respect to said equipment in response to image impulses, said stylus shaped member being operatively associated with said drum for reproducing the image, and means for imparting to said stylus shaped member an additional vibratory motion with respect to said equipment independent of

said picture impulses to prevent the raising of said lever and printing equipment away from said drum by continued pressure of said stylus-shaped member on said drum.

5 2. An arrangement according to claim 1, in which said means at the other end of said lever comprises rollers mounted on said lever and co-operating with said picture drum.

10 3. An arrangement according to claim 1, in which said printing equipment comprises electromagnetic or electrodynamic means and the additional vibratory motion of the pressure member

is effected by means for applying an additional alternating voltage to the electromagnetic or electrodynamic printing equipment.

4. An arrangement according to claim 1, in which the additional vibratory motion is effected 5 by the scanning of the image at the transmitting device.

5. An arrangement according to claim 1, having means for adjusting the space between the pressure member and the picture drum. 10

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