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2,012,437

RECORDING DEVICE

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Fig. 1

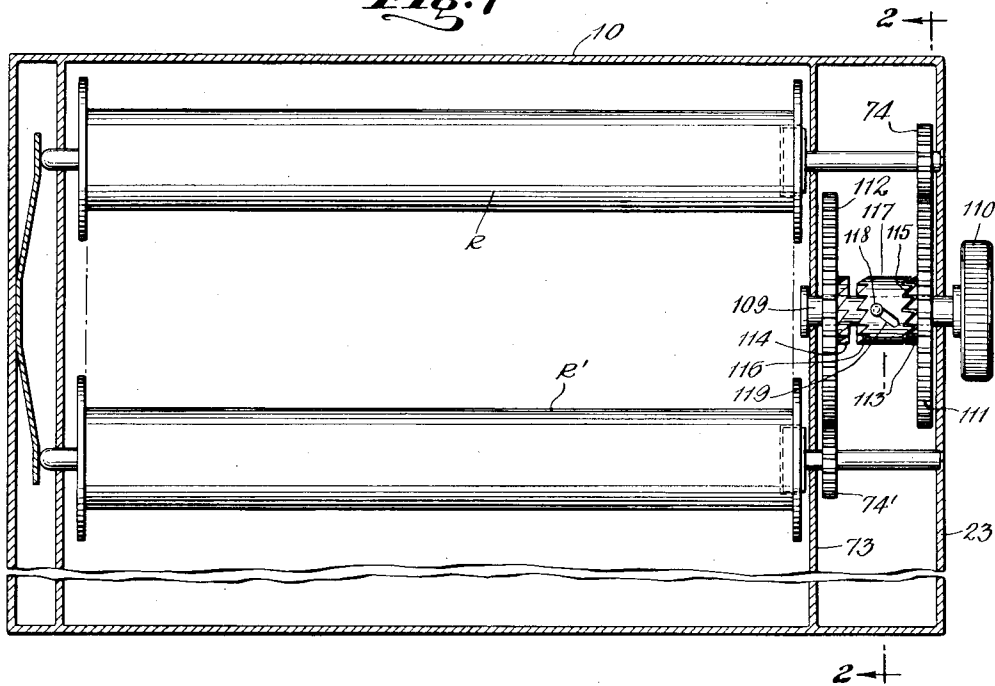
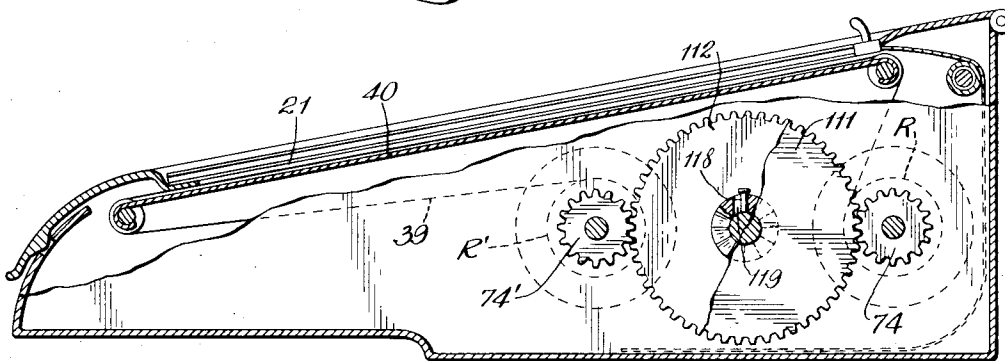


Fig. 2



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RECORDING DEVICE

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3 Claims. (Cl. 242—55)

This invention relates generally to recording devices, and particularly to that class wherein the pliable element upon which the record is noted, for instance paper, is wound upon one roller while simultaneously being unwound from another.

An object of this invention is to provide a simple, efficient and practical recording device adapted for a multiplicity of uses.

A further object of the invention resides in the provision of a recording device wherein two rollers having wound thereupon a strip of paper are mounted and operated selectively in such a manner that the said paper will constantly remain taut, whereby the paper may be rolled and unrolled as desired without producing any slack.

A further object of the invention resides in housing in a recording device a pair of spaced rollers having gears, and a rotatable operating shaft intermediate the said rollers said shaft being provided with a gear or gears, means being provided for operating the gears on the rollers, selectively, by the gear or gears on the shaft.

A further object of the invention resides in providing in a recording device a pair of spaced rollers and a rotatable operating shaft therebetween and pivoted to be swung towards the rollers, respectively, for engagement therewith, selectively, mechanism being provided to facilitate said accomplishment.

This invention accordingly consists in the features of construction, combination of parts and in the unique relations of the members and in the relative proportioning and disposition thereof; all as more completely outlined herein.

To enable others skilled in the art so fully to comprehend the underlying features thereof that they may embody the same by the numerous modifications in structure and relation contemplated by this invention, a drawing depicting preferred and modified forms has been annexed as a part of this disclosure, and in such drawing, like characters of reference denote corresponding parts throughout all the views, of which:—

Fig. 1 is a top sectional view of a recording device according to the invention and

Fig. 2 is a sectional view along the line 2—2 of Fig. 1.

Referring to the drawing, the housing 10 is provided with a transversely disposed bracket 73. Rotatably mounted in bracket 73 and end 23 of housing 10 is a shaft 109 having fixed thereto the manipulatable knob 110. Loosely mounted for rotation on shaft 109 are the spaced gears 111 and 112 carrying respectively ratchet teeth 113

and 114 adapted for selective engagement with complementary teeth 115 and 116 respectively of a sleeve or clutch 117 mounted for slidable movement upon shaft 109, that is, clutch 117 may be slidably shifted longitudinally of shaft 109, by reason of a driving pin 118 fixed on shaft 109 cooperating with cam slot 119 in the clutch.

The ratchet teeth 113, 115 and 114, 116 are such that rotation of knob 110 in one direction will force teeth 116 to disengage from teeth 114 and causing engagement of teeth 115 with teeth 113 and further rotation of the knob in the same direction will cause rotation of gear 111, and since pinion 74 is in mesh with gear 111, roller R will rotate; while rotation of knob 110 in a counterdirection will force teeth 115 to disengage teeth 113 and cause teeth 116 to engage teeth 114. Consequently upon further rotation of knob 110 in the same direction, rotation of gear 112 is effected and since the latter is in mesh with pinion 74, roller R' will rotate.

A flexible sheet of record paper 39 is appropriately coiled about roller R' and passed over guide support 40 after it is suitably secured to roller R. When knob 110 is actuated a portion of the paper 39 registers before a suitable window 21 at the upper part of the housing.

During rotation of one of the rollers by knob 110, the other roller serves as an idler and accordingly both rollers travel at equal or varying rates of speed.

By the present arrangement, it will be observed that knob 110 is movable about a central axis only and hence in order to operate either roller, that is, the rollers selectively all that is required is the mere turning of the knob in one direction or the other.

Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can by applying current knowledge readily adapt it for various applications without omitting certain features, that, from the standpoint of the prior art, fairly constitute essential characteristics of the generic or specific aspect of this invention, and therefore, such adaptations should and are intended to be comprehended within the meaning and range of equivalency of the following claims:—

I claim:—

1. In a recording device for adjustably sustaining a flexible sheet, the combination of, a housing, a pair of spaced and rotatable rollers adapted to move said sheet, means for selectively driving said rollers comprising a rotatable shaft, a pair of spaced gears loosely mounted on said shaft

and each having ratchet means, a clutch member common to said ratchet means and slidable longitudinally of said shaft, and means carried by said shaft for displacing said clutch member to disengage from one of said ratchet means and engage the other of said ratchet means for driving one of said rollers to permit the remaining roller of said pair of rollers to operate as an idler upon rotation of said shaft in one direction.

2. In a recording device for adjustably sustaining a flexible sheet, the combination of, a housing, a pair of spaced and rotatable rollers operatively moving said sheet, means for selectively driving said rollers comprising a rotatable shaft, a pair of spaced gears mounted on said shaft and each including ratchet means, a unitary clutch member common to said ratchet means and means carried by said shaft for displacing said clutch member to disengage from one of said ratchet means and engage the other of said ratchet means for driving one of said rollers to permit the remaining roller of said

pair of rollers to operate as an idler upon rotation of said shaft in one direction.

3. In a recording device for adjustably sustaining a flexible sheet, the combination of, a housing, a pair of spaced rotatable rollers for displacing said sheet, a pinion associated with each roller, means for selectively driving said rollers comprising a rotatable shaft, a manipulator overhanging said housing and concentrically mounted on said shaft, a pair of spaced gears loosely mounted on said shaft and each carrying ratchet means, a clutch member concentrically disposed and slidably mounted on said shaft and means carried by said shaft for displacing said clutch member to disengage from one of said ratchet means and engage the other of said ratchet means to actuate one of said pinions and rotate an associated roller and permit the remaining roller of said pair of rollers to operate as an idler upon rotation of said shaft in one direction.

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