July 21, 1936. H. J. GREENE, SR., ET AL. 2,048,259

STENOTYPE COPY HOLDER

Filed Oct. 3, 1935

Fig 10

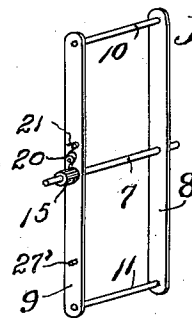


Fig 1

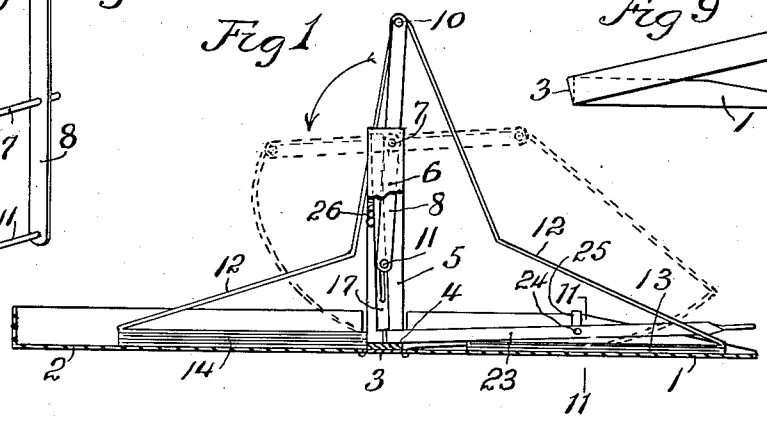


Fig 9

Fig 11

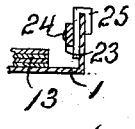


Fig 2

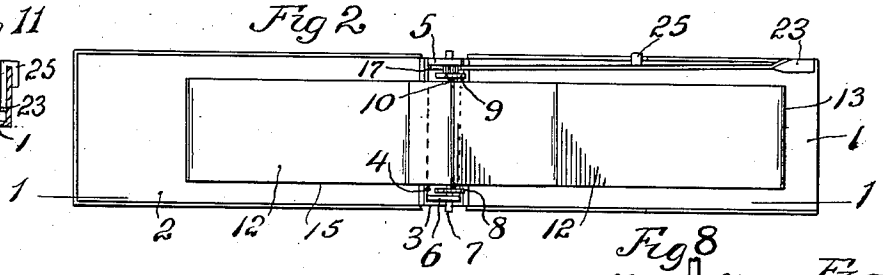


Fig 3

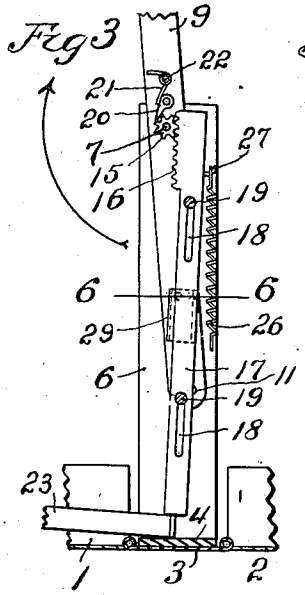


Fig 4

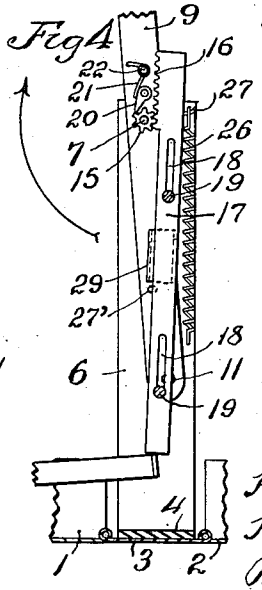


Fig 5

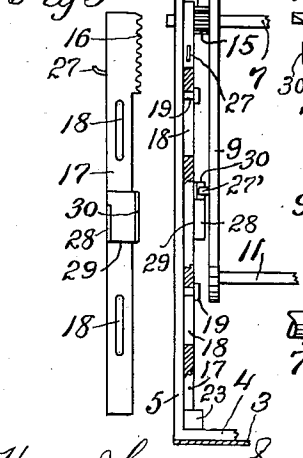


Fig 8

Fig 6

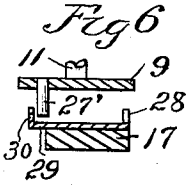
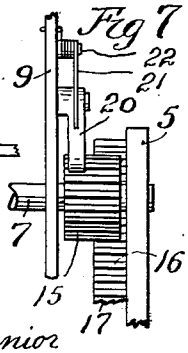


Fig 7



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STENOTYPE COPY HOLDER

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Application October 3, 1935, Serial No. 43,346

13 Claims. (Cl. 120—29)

Our invention relates to improvements in stenotype copy holders. It relates particularly to the type of copy holders of the kind described in which the copy is on a strip arranged in zigzag folds and is fed lengthwise from a pile fold by fold to a display position in which one side of the strip may be observed following which the strip is deposited in folds in another pile.

The object of our invention is to provide a novel copy holder of the kind described which is simple, cheap, strong, durable, and not likely to get out of order, which is easily and quickly operated, and efficient in operation, and which may be folded into compact form when not in use.

The novel features of our invention are hereinafter fully described and claimed.

In the accompanying drawing, which illustrates the preferred embodiment of our invention.

Fig. 1 is a longitudinal sectional view on the line 1—1 of Fig. 2, showing the copy holder, partly broken away, in its operative position.

Fig. 2 is a plan view of the same.

Fig. 3 is an enlarged vertical sectional view of the revoluble strip engaging member, partly broken away, in the display position and lockingly engaged with the rack.

Fig. 4 is a view similar to Fig. 3, showing the rack disposed in the elevated position and out of locked engagement with the strip engaging member.

Fig. 5 is a side elevation of the rack looking at the side opposite to that shown in Figs. 3 and 4.

Fig. 6 is an enlarged section on the line 6—6 of Fig. 3.

Fig. 7 is an enlarged elevation of the pinion and pawl and parts connected therewith partly broken away.

Fig. 8 is an enlarged view, partly in elevation and partly in vertical section of the rack, pawl and pinion and portions of the supporting standard and of the strip engaging member.

Fig. 9 is a reduced side elevation of the case shown partly closed.

Fig. 10 is a perspective view of the revoluble strip engaging member and the pinion and pawl carried thereby.

Fig. 11 is an enlarged section on the line 11—11 of Fig. 1.

Similar characters of reference designate similar parts in the different views.

The holder is provided with a case comprising two box like members 1 and 2, which are hinged at their adjacent ends to a central member 3, so as to be adapted to be folded with the member 1 in the member 2, as shown in Fig. 9.

Fastened to the upper side of the case member 3 is the transverse portion 4 of a U-shaped standard having upright arms 5 and 6 which serve as a support for a horizontal transverse shaft 7 rotatable in the arms 5 and 6 adjacent to their upper ends, and being a part of a rectangular frame which includes two side bars 8 and 9 fastened to and revoluble with the shaft 7, and two transverse end rods 10 and 11 mounted in the side bars 8 and 9 respectively adjacent to the ends thereof, Fig. 10.

The rectangular frame just described constitutes a revoluble member for feeding lengthwise and displaying in position for reading one side of a stenotype copy strip 12, which is arranged in a pile 13 of zigzag folds in the box member 1.

The strip engaging member is revolved in the direction indicated by the arrow in Fig. 1, and in so revolving, the copy strip 12 is alternately engaged by the end rods 10 and 11 at the bends of the folds of the strip and the folds are consecutively lifted from the pile 13 to a display position, as shown at the right of the standard arms 5 and 6 in Figs. 1 and 2, in which display position the copy on the outer side of the strip may be read.

As shown in Fig. 1, the rod 10 of the strip engaging member is supporting the copy strip 12 at the bend of a fold. On the continued revolution of the member in the direction indicated by the arrow in Fig. 1, the rod 10 will deposit the fold engaged by the rod on the pile of folds 14 in the case member 2, at the side of the axis 7 of the revolving strip engaging member opposite the side of the axis in which is disposed the pile 13.

The continued revolution of the strip engaging member will cause the rod 11 to engage the strip 12 at the next succeeding bend in the strip, thus lifting the next fold to the display position and feeding the strip 12 lengthwise to the left, as viewed in Figs. 1 and 2.

For intermittently revolving the strip engaging member, there is provided a pinion 15 which is revoluble on the shaft 7 at the outer side of the bar 9. Meshing with the pinion 15 are rack teeth 16 of a rack comprising an upright bar 17 having two longitudinal slots 18 through which extend respectively two pins 19 mounted on and extending horizontally inwardly from the arm 5 of the supporting standard, Figs. 3, 4, 5 and 8.

Th rack bar 17 is vertically reciprocative on the pins 19, and, in so reciprocating, the teeth 16 alternately revolve the pinion 15 in opposite directions. When the rack bar 17 is moved upwardly the pinion 15 is revolved counter clockwise, as

viewed in Figs. 3 and 4, and when the rack bar moves downwardly the pinion revolves clockwise, as so viewed.

To cause the pinion 15 to revolve the strip engaging member in the direction indicated by the arrow in Fig. 1, and in the direction indicated by the arrows in Figs. 3 and 4, a pawl 20 is pivoted on the outer side of the bar 9 and is held engaged with the pinion 15 by a spring 21 mounted on a pin 22 on the bar 9.

The pawl 20 is so engaged with the pinion 15 that when the latter is revolved counter clockwise, as viewed in Fig. 3, by the upward movement of the rack 17, the pinion will run freely.

When the rack 17 lowers so as to revolve the pinion 15 clockwise, as viewed in Fig. 3, the pawl 20 locks with the pinion and causes the revolution of the strip engaging member one complete revolution in the direction indicated by the arrow in Fig. 1, and in the direction indicated by the arrow in Fig. 4, thereby causing the rods 10 and 11 to alternately engage the strip 12 at the bends of the folds, and to consecutively lift the latter to the display position and then dispose the lifted folds upon the pile 14.

For lifting the rack bar 17, it has its lower end engaged with the upper edge of a lever 23 which is pivoted on a pin 24 mounted on the inner arm of a U-shaped clip 25, which is inverted and removably embraces one side and upper edge of the case member 1, Figs. 1, 2 and 11. Upon the operator depressing the outer end of the lever 23, the inner end of the lever will rise and will lift the rack bar 17, thus freely revolving the pinion 15 without revolving the strip engaging member.

A vertical coil spring 26 having its upper end fastened to a pin 27 on the rack bar 17, and having its lower end fastened to the arm 5 of the standard moves the rack 17 downwardly after the operator releases the lever 23, thus revolving the pinion clockwise, as viewed in Fig. 4, and with it the strip engaging member through the agency of the pawl 20.

To positively stop and lock the strip engaging member in the display position shown in solid lines in Fig. 1, and in the position shown in Fig. 3, after the member has made a complete revolution and fed the strip 12 lengthwise, as has been described, there is provided in the outer side of the bar 9 a projecting pin 27', which when the member revolves to the display position, passes over the upper edge of one longitudinal upright flange 28 of a channel member 29, fastened to the inner side of the rack 17, and strikes the opposite flange 30 of the channel member 29.

The strip engaging member is thus locked from further forward movement. When the rack 17 is again lifted by the depression of the outer end of the lever 23, the channel member 29 will be lifted to the position shown in Fig. 4, in which position the pin 27 will pass out of the channel and will be free of engagement with the channel member 29, thus permitting the strip engaging member to be revolved upon the lowering of the rack 17 by the spring 26.

In the operation of the device, the copy strip having the stenotype copy on one side is disposed, as shown in Figs. 1 and 2, in zigzag folds 13 flatwise on the bottom of the case member 1.

The strip 12 is then disposed with its bent portion at the first fold upon the rod 10, thus placing the strip in the display or reading position with the copy side next the operator, who is at the right, as viewed in Figs. 1 and 2.

After copying the matter which is exposed to view, the operator depresses the adjacent end of the lever 23, thus lifting the rack 17 from the position shown in Fig. 3 to that shown in Fig. 4. The rack bar 17 will revolve the pinion 15 counter clockwise, as viewed in Figs. 3 and 4, the pinion revolving freely under the pawl 20. The operator then releases the lever, upon which the coil spring 26 will retract downwardly the rack 17, thus revolving the pinion 15 clockwise upon which the pawl 20 being lockingly engaged by the pinion 15 will effect the rotation of the strip engaging member in the direction indicated by the arrow in Fig. 1, and in the direction indicated by the arrow in Figs. 3 and 4.

The rod 10 will carry the strip 12 forwardly lengthwise and the rod 11 will engage the strip 12 at the next bend thereof, and at the end of the revolution of the strip engaging member, when the flange 30 engages the pin 27' and stops the turning of the member, the two portions of the fold which is in the lifted position at the left of the standard will have been deposited on the pile 14, and the two portions of the fold which is at the right of the standard will be in the lifted position at the left.

At the end of the revolution, the two portions of the next fold on the pile 13 will be lifted to the display position at the right of the standard, as viewed in Fig. 1, and a cycle will have been completed.

Thus by successively depressing the lever 23, the strip engaging member will be intermittently revolved a revolution at a time until the entire strip 12 has been displayed at one side and transferred in folds at the left of the standard in a pile 14. The case may then be folded with the operating parts and the folded copy strip inside the case.

By utilizing the spring 26 to move the rack 17 for revolving the strip engaging member, the latter will always be revolved at a uniform speed.

Various modifications of our invention, within the scope of the appended claims, may be made without departing from the spirit of our invention.

What we claim is:—

1. In a stenotype copy holder for displaying one side of and feeding lengthwise a copy strip from a pile in which it is arranged in zigzag folds, a support, and a member rotatable and adapted for continued revolution in one direction on said support, and having means by which, when revolved in said direction, it will engage the strip at the bends of the folds and will consecutively lift the latter from the pile to a display position and then dispose them in another pile.

2. In a stenotype copy holder for displaying one side of and feeding lengthwise a copy strip from a pile in which it is arranged in zigzag folds, a support, and a member rotatable and adapted for continued revolution in one direction on said support, and, when revolved in said direction, having spaced apart portions consecutively engage the strip at the bends of the folds and consecutively lift the latter from the pile to a display position and then dispose them in another pile.

3. In a stenotype copy holder for displaying one side of and feeding lengthwise a copy strip from a pile in which it is arranged in zigzag folds, a support, and a member rotatable and adapted for continued revolution in one direction on said support, and, when revolved in said direction, having diametrically opposite portions alternately

engage the strip at the bends of the folds and consecutively lift the latter from the pile to a display position and then dispose them in another pile.

4. In a stenotype copy holder for displaying one side of and feeding lengthwise a copy strip from a pile in which it is arranged in zigzag folds, a support, a member rotatable and adapted for continued revolution in one direction on said support, and having means by which, when revolved in said direction, it will engage the strip at the bends of the folds and will consecutively lift the latter from the pile to a display position and then dispose them in another pile, and means for intermittently so revolving said member and for holding it between the revolving operations in the display position.

5. In a stenotype copy holder for displaying one side of and feeding lengthwise a copy strip from a pile in which it is arranged in zigzag folds, a support, a member rotatable and adapted for continued revolution in one direction on said support, and, when revolved in said direction, having diametrically opposite portions alternately engage the strip at the bends of the folds and consecutively lift the latter from the pile to a display position and then dispose them in another pile, and means for intermittently so revolving said member and for holding it between the revolving operations in the display position.

6. In a stenotype copy holder for displaying one side of and feeding lengthwise a copy strip from a pile in which it is arranged in zigzag folds, a support, a member rotatable and adapted for continued revolution in one direction on said support, and having means by which, when revolved in said direction, it will engage the strip at the bends of the folds and will consecutively lift the latter from the pile to a display position and then dispose them in another pile, means for intermittently so revolving said member from one display position to the next, and means releasable by said revolving means for locking said member in the display positions.

7. In a stenotype copy holder for displaying one side of and feeding lengthwise a copy strip from a pile in which it is arranged in zigzag folds, a support, a member rotatable and adapted for continued revolution in one direction on said support, and having means by which, when revolved in said direction, it will engage the strip at the bends of the folds and will consecutively lift the latter from the pile to a display position and then dispose them in another pile, a pinion revoluble around the axis of said member, a rack reciprocative on said support and meshing with and adapted to revolve said pinion in opposite directions, and a pawl mounted on and revoluble with said member and lockingly engaging said pinion when the latter is revolved in the first named direction, said pinion, when revolved in said direction by said rack, revolving through said pawl said member from one display position to the next.

8. In a stenotype copy holder for displaying one side of and feeding lengthwise a copy strip from a pile in which it is arranged in zigzag folds, a support, a member rotatable and adapted for continued revolution in one direction on said support, and having means by which, when revolved in said direction, it will engage said strip at the bends of the folds and will consecutively lift the latter from the pile to a display position and then dispose them in another pile, a pinion revoluble around the axis of said member, a rack reciprocative on said support and meshing with and adapted to revolve said pinion in opposite directions, a pawl mounted on and revoluble with said member and lockingly engaging said pinion when the latter is revolved in the first named direction, said pinion, when revolved in said direction by said rack, revolving through said pawl said member from one display position to the next, and means operative by said rack for locking said member in the display positions.

9. In a stenotype copy holder for displaying one side of and feeding lengthwise a copy strip from a pile in which it is arranged in zigzag folds, a support, a member rotatable and adapted for continued revolution in one direction on said support, and having means by which, when revolved in said direction, it will engage the strip at the bends of the folds and will consecutively lift the latter from the pile to a display position and then dispose them in another pile, a pinion revoluble around the axis of said member, a rack reciprocative on said support and meshing with and adapted to revolve said pinion in opposite directions, a pawl mounted on and revoluble with said member and lockingly engaging said pinion when the latter is revolved in the first named direction, said pinion, when revolved in said direction by said rack, revolving through said pawl said member from one display position to the next, and means for reciprocating said rack.

10. In a stenotype copy holder for displaying one side of and feeding lengthwise a copy strip from a pile in which it is arranged in zigzag folds, a support, a member rotatable and adapted for continued revolution in one direction on said support, and having means by which, when revolved in said direction, it will engage the strip at the bends of the folds and will consecutively lift the latter from said pile to a display position and then dispose them in another pile, a pinion revoluble around the axis of said member, a rack reciprocative on said support and meshing with and adapted to revolve said pinion in opposite directions, a pawl mounted on and revoluble with said member and lockingly engaging said pinion when the latter is revolved in the first named direction, said pinion, when revolved in said direction by said rack, revolving through said pawl said member from one display position to the next, manually operated means for moving said rack in one direction and means for automatically moving the rack in the opposite direction.

11. In a stenotype copy holder for displaying one side of and feeding lengthwise a copy strip from a pile in which it is arranged in zigzag folds, a support, a member rotatable and adapted for continued revolution in one direction on said support, and having means by which when revolved in said direction, it will engage said strip at the bends of the folds and will consecutively lift the latter from the pile to a display position and then dispose them in another pile, a pinion revoluble around the axis of said member, a rack reciprocative on said support and meshing with and adapted to revolve said pinion in opposite directions, a pawl mounted on and revoluble with said member and lockingly engaging said pinion when the latter is revolved in the first named direction, said pinion, when revolved in said direction by said rack, revolving through said pawl said member from one display position to the next, means operative by said rack for locking said member in the display positions, and means for reciprocating said rack.

12. In a stenotype copy holder for displaying

one side of and feeding lengthwise a copy strip from a pile in which it is arranged in zigzag folds, a support, a member rotatable and adapted for continued revolution in one direction on said support, and, when revolved in said direction, having diametrically opposite portions alternately engage the strip at the bends of the folds and consecutively lift the latter from the pile to a display position and then dispose them in another pile, a pinion revoluble around the axis of said member, a rack reciprocative on said support and meshing with and adapted to revolve said pinion in opposite directions, a pawl mounted on and revoluble with said member and lockingly engaging said pinion when the latter is revolved in the first named direction, said pinion, when revolved in said direction by said rack, revolving through said pawl said member from one display position to the next, means operative by said rack for locking said member in the display positions, manually operated means for moving said rack in one direction, and means for automatically moving the rack in the opposite direction.

13. In a stenotype copy holder for displaying one side of and feeding lengthwise a copy strip from a pile in which it is arranged in zigzag folds, a support, a member rotatable and adapted for continued revolution in one direction on said support, and, when revolved in said direction, having diametrically opposite portions alternately engage the strip at the bends of the folds and consecutively lift the latter from the pile to a display position and then dispose them in another pile, a pinion revoluble around the axis of said member, a rack reciprocative on said support and meshing with and adapted to revolve said pinion in opposite directions, a pawl on and revoluble with said member and lockingly engaging said pinion when the latter is revolved in the first named direction, said pinion, when revolved in said direction by said rack, revolving through said pawl said member from one display position to the next, means operative by said rack for locking said member in the display positions, manually operated means for moving said rack in a direction in which it will revolve said pinion in a direction such that it will not lockingly engage said pawl, and a spring for moving said rack in the opposite direction.

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