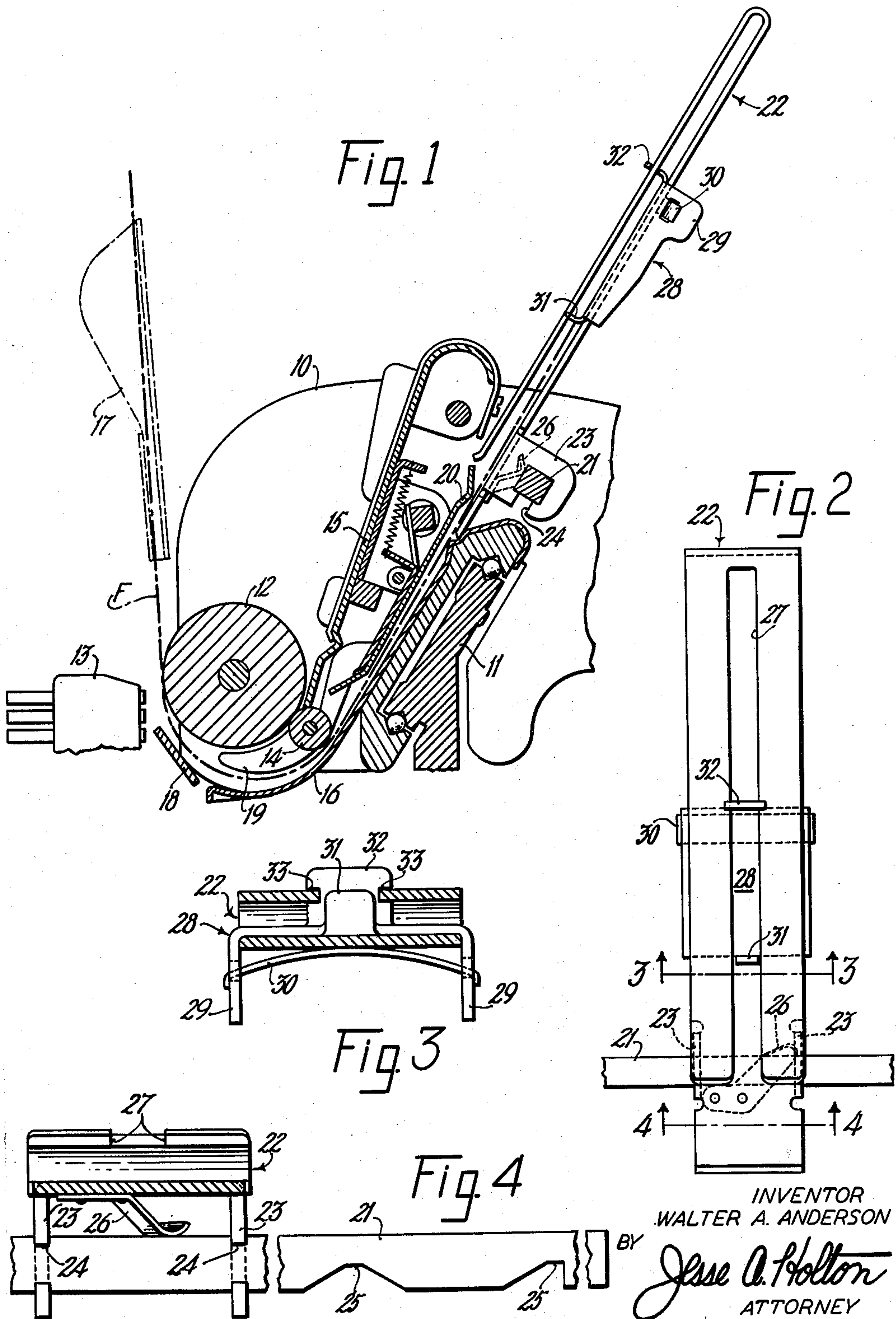


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FRONT FEED PAPER GAUGE

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1

This invention relates to a tabulating carriage for an accounting machine and more particularly to adjustable stops for the rear edges of sheets inserted from the front of the carriage.

It is desirable to provide accounting machine carriages adapted for front feeding of work sheets with adjustable stops to facilitate rapid and accurate insertion of such sheets. Such stops should be light, simple and inexpensive but should be adjustable both as to lateral position and as to stopping depth to accommodate sheets in different lateral positions and to arrest the work sheet at the various printing lines. Such stops should also be removable. It is accordingly an object of the present invention to provide a stop for the rear edge of a front inserted work sheet which stop is composed of a few simple light elements and yet is readily adjustable laterally of the carriage.

Another object of this invention is to provide a readily removable paper stop to permit the machine to be used for long front fed sheets or to vary the number of sheets which are to be used.

Still another object is to provide a paper stop which is readily adjustable to arrest a front fed sheet at any desired printing line.

Other incidental objects of the invention will be set out in the accompanying specification and drawings.

In the drawings:

Figure 1 is a side view, partly in section, of the accounting machine carriage showing one of the paper stops,

Figure 2 is a front view of the stop of Figure 1,

Figure 3 is a sectional view of the stop taken along the line 3—3 of Figure 2, and

Figure 4 is a sectional view of the stop taken along the line 4—4 of Figure 2.

A preferred embodiment of the paper stops is described herein as applied to the carriage of a conventional Sundstrand accounting machine of the type described in U. S. Patent No. 2,088,982, issued to Oscar J. Sundstrand, August 3, 1937. This accounting machine includes generally a base section carrying the keyboard, the register, and the type bars and a carriage movable laterally on the main section to position different columns of work sheets carried thereon at the printing zone of the type bars.

Referring to Figure 1, the carriage, designated generally at 10, is laterally movable on a rail 11 secured to the main machine frame. A platen 12 is rotatably carried between the side walls of the carriage to present work sheets passed around it to the usual type bars 13. The platen 12 is

2

provided with the usual sets of feed rolls 14 to press the paper against platen 12, only one of such feed rolls being shown herein. The carriage 10 supports two paper tables 15 and 16, the front table 15 serving to direct rear inserted sheets between the platen 12 and feed rolls 14 and the rear table 16 being for front inserted sheets.

A front inserted work sheet F is directed by a chute 17 to pass between platen 12 and a deflector plate 18. The sheet F is deflected by plate 18 into a throat formed by the lower curved edge of the rear paper table 16 and the curved forward projections of arms 19 which support feed rolls 14. A plate 20 secured parallel to the paper table 16 forms with table 16 a chute to guide sheet F into the rear edge stops which can be set to determine the limit to which sheet F may be inserted.

A square bar 21 to carry the rear edge stops is secured between the ends of carriage 10 and passes above and to the rear of the paper table 16. Each rear edge stop, see also Figures 2, 3 and 4, is formed of a strip 22 bent into a U shape. Two ears 23 are bent rearwardly from strip 22 and are perforated with a square hole of substantially the same size as bar 21. Each ear 23 is also slotted at 24, from the bottom into the perforated hole to permit removal of the stop 22 from bar 21.

For such removal, bar 21 is, at two places 25, adjacent to one end, see Figure 4, notched down to approximately the size of slots 24, the distance between the notches 25 corresponding to that between ears 23. Each stop is then removable by sliding it to register with notches 25 at which point it may be easily lifted from the bar. A leaf spring 26 secured to the rear of stop 22 presses against the front face of bar 21 to frictionally retain stop 22 against lateral movement.

The front leg of strip 22 is slotted at 27 to permit adjustment of a paper engaging stop slide 28 slidable between the legs of strip 22. Stop slide 28 is formed with two rearwardly extending perforated ears 29. A bowed flat spring 30 passes through the perforations in ears 29 and presses against the rear side of strip 22 to frictionally retain slide 28 in its adjusted position. Slide 28 is also bent to provide two ears 31 and 32. The upper ear 32 is wider than slot 27 and is provided with notches 33 into which the two sides of slot 27 fit. This engagement serves to retain the two legs of strip 22 at the proper separation and the protruding end of ear 32 may be grasped to move slide 28 on strip 22. The lower ear 31 extends into slot 27 to close the gap between the

3

front and rear legs of strip 22 and thus acts as a paper stop for sheet F.

In use, a front sheet F is inserted in the chute 17 and moved downwardly. The bottom edge of sheet F first engages deflector plate 18 and passes into the throat formed by table 16 and arms 19 and plate 20, after which it passes between the legs of strip 22 until arrested by ear 31 of slide 28.

It is then evident that stop 22 is laterally adjustable on bar 21 to any columnar position and may be easily removed therefrom thus permitting use of as many front fed sheets as desired and in any selected columnar positions. The depth of insertion of any sheet may be readily determined by proper positioning of the sliding stop 28 on each stop 22.

Many modifications of the structure above described are possible without departing from the spirit of the invention and the scope of the invention is to be limited only by the following claims.

What is claimed is:

1. A record making machine including a carriage, a platen in said carriage and members on said carriage to direct a front inserted work sheet about said platen, a flat sided bar on said carriage, and a paper stop mounted on said bar to receive and arrest the leading edge of said sheet, said paper stop comprising a U-shaped strip, projections near one end of said strip to engage said bar and retain said stop in a predetermined orientation, means on said strip to frictionally engage said bar and restrain said strip against lateral movement on said bar, a stop member positioned on one of the legs of said strip and obstructing the space between said legs to engage said edge of said front inserted sheet and frictional means to retain said stop member in any adjusted position.

2. A record making machine including a carriage, a platen in said carriage and means on said carriage to direct a front inserted work sheet about said platen, a bar having at least one flat side on said carriage, and a paper stop mounted on said bar to receive and arrest the leading edge of said work sheet, said paper stop comprising a U-shaped strip, means on said strip to engage said bar to retain said stop in a predetermined

4

orientation, spring means on said strip to frictionally engage said bar to restrain said stop from lateral movement, a slot in one leg of said U-shaped strip, a stop member slidable on the other leg of said strip and frictionally held in an adjusted position thereon, a stop lug on said stop member, and a notched lug on said stop member to engage the edges of said slot in said strip and maintain a predetermined distance between the legs of said strip.

3. A paper stop for a record making machine including a movable carriage, said stop comprising a folded strip having two substantially parallel, spaced legs, a stop member positionable on one of said legs, frictional means to hold said stop member in any adjusted position, means on said stop member to engage the other of said legs and retain it at a fixed distance from said first leg, and means for mounting said folded strip on said carriage.

4. A paper stop gage for a record making machine including a carriage and means on said carriage to guide a record sheet in a predetermined path, said paper stop gage comprising a strip folded to provide two substantially parallel spaced legs, a stop member slidable on one of said legs, means to frictionally retain said stop member in any adjusted position on said leg, means on said stop member to engage said other leg and retain it at a fixed distance from said first leg, means to mount said folded strip on said carriage with the open end of said strip in position to receive the record sheet therebetween and said strip free to move laterally of said carriage, impositive means to hold said strip against lateral movement and a paper engaging lug on said stop member.

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