

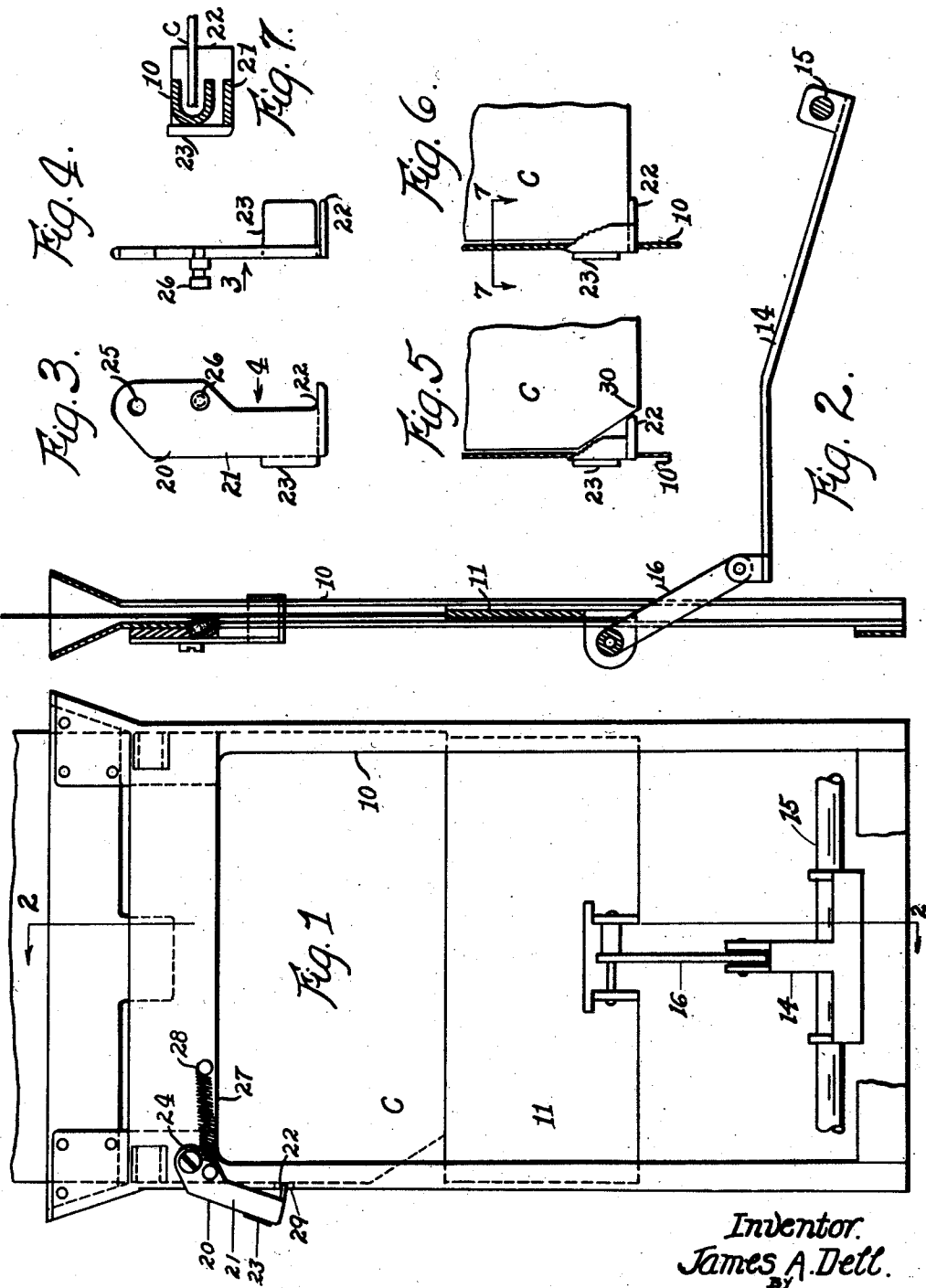
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CARD GUIDE AND SAFETY LATCH

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CARD GUIDE AND SAFETY LATCH

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This invention relates to apparatus in which an impression is made on a record card. The usual workman's time recorder is a common example of such apparatus. In such recorders, it is desirable to prevent printing of the record on the wrong face of the card, as will occur if the card is wrongly inserted in the card guide.

Devices have been heretofore provided to prevent operation of a recorder when a card is wrongly presented, but all such devices, as far as known, have become operative only when the card is substantially fully inserted in the card guide, and they have usually acted to disable certain more or less complicated operative connections.

It is the general object of my present invention to provide a very simple safety latch which will admit a card to a card guide if it is rightly faced but which will positively prevent insertion of a card wrongly faced.

My improved safety latch also acts promptly as the card enters the card guide and is independent of the vertically movable card support or abutment.

My invention further relates to arrangements and combinations of parts which will be hereinafter described and more particularly pointed out in the appended claims.

A preferred form of the invention is shown in the drawing, in which

Fig. 1 is a front elevation of a card guide having my improved safety latch mounted thereon;

Fig. 2 is a sectional side elevation, taken along the line 2—2 in Fig. 1;

Fig. 3 is a front elevation of the safety latch;

Fig. 4 is a side elevation, looking in the direction of the arrow 4 in Fig. 3;

Fig. 5 is an enlarged fragmentary view showing the coercion of the latch with the beveled corner of a record card;

Fig. 6 is a similar view but with the card reversed; and

Fig. 7 is a detail section taken along the line 7—7 in Fig. 6.

Referring to the drawing, I have shown a card guide 10 in which a card support or abutment 11 is vertically slidable. The abutment 11 may be moved vertically by an arm 14 mounted on a shaft 15 and connected to the abutment 11 by a link 16. Any usual operating mechanism may be provided to give the shaft 15 an intermittent angular movement at predetermined times. The parts thus far described are of the usual construction and in themselves form no part of my present invention.

My improved safety latch 20 as shown in Figs. 3 and 4 is preferably made from a single piece of sheet metal, and having an upright or body portion 21, a bottom flange 22 and a rear flange 23. The latch 20 is secured at the front of the card guide 10 by a pivot screw 24 inserted through a hole 25. A stud 26 is mounted in the body portion 21 and is connected by a spring 27 to a fixed stud 28. The latch is thus yieldingly held normally in the position indicated in Figs. 5, 6 and 7. The grooved side bar of the card guide is slotted or cut away as shown at 29 (Fig. 1) to admit the bottom flange 22.

The record card C to be used with my improved safety latch has one lower corner beveled or cut off at an angle as indicated at 30 in Fig. 5. If the card is correctly inserted in the card guide, as shown in Fig. 5, the beveled edge 30 coacts with the bottom flange 22 of the safety latch to swing the latch to the inoperative position shown in Fig. 1, so that downward movement of the card may be continued until the card rests on the usual card support or abutment 11. If, however, the card is wrongly faced, the square corner of the card will rest flatly against the bottom flange 22, as indicated in Fig. 6, and further insertion of the card is prevented.

It will be noted from Fig. 1 that the bottom of the card engages the bottom flange 22 of the safety latch 20 very soon after insertion of the card in the upper end of the card guide 10, and that such engagement always occurs at the same elevation, regardless of the position of the movable card abutment 11.

Full insertion of the card in the card guide before determining that it is wrongly faced is thus avoided, with some saving of time and with less chance of injury to the card. Furthermore, the safety latch is not mounted on the movable abutment, as heretofore usually practiced, and is not required to control more or less complicated disabling devices. The latch merely stops downward movement of the card, positively and wholly by its own action, if the card is wrongly inserted.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claims, but what I claim is:

1. In a recorder, a guide in which a record card is manually insertable, and a safety latch pivoted to a side portion of said card guide near its upper end and depending from its pivot and having a transverse bottom flange providing an abrupt shoulder normally projecting into an opening in said side portion and into the path

of an inserted card, and means to hold said latch yieldingly in card-engaging position, said latch being transversely displaceable by engagement with a beveled bottom corner on an inserted card but blocking a card when said shoulder is engaged by a square bottom corner thereof.

2. In a recorder, a guide in which a record card is manually insertable, and a safety latch movably and yieldingly mounted directly on said card guide and presenting an abrupt shoulder in the path of a record card inserted therein, said card having one beveled bottom corner only and said latch moving out of operating position and admitting the full width of said card past said latch when said beveled corner engages and displaces said latch but said latch remaining in operative position and blocking said card when the card is presented in reverse position to en-

gage said latch shoulder with its other and square bottom corner.

3. In a recorder, a guide in which a record card is manually insertable, and a safety latch pivoted directly on said card guide and at one side thereof and having a portion providing an abrupt shoulder which normally projects into the path of a card in said card guide and which is engaged by the card before insertion thereof to recording position, said latch being displaceable by engagement of a beveled bottom corner of an inserted card with said projecting portion and, when displaced, allowing the full width of the card to pass said latch for further insertion, but said latch preventing such further insertion of the card when said projecting portion is engaged by a square bottom corner of the card.

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