Aug. 18, 1931. C. H. LAW 1,819,251

SIGNAL DEVICE FOR RECORD SHEETS

Filed April 5, 1930

Fig. 1.

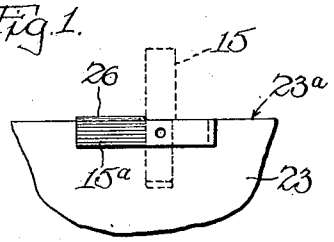


Fig. 2.

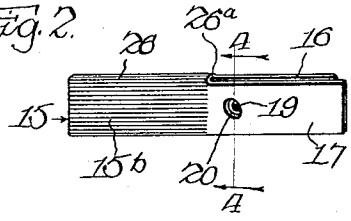


Fig. 3.

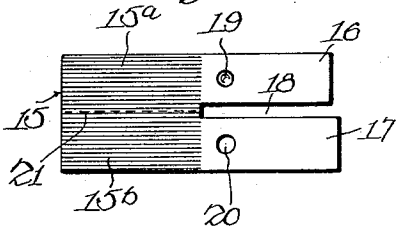


Fig. 4.

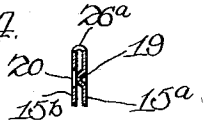


Fig. 5.

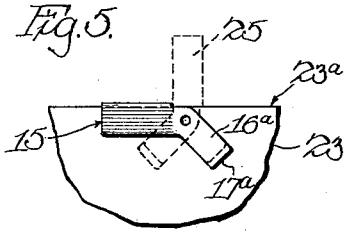


Fig. 6.

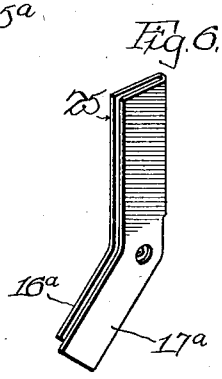


Fig. 7.

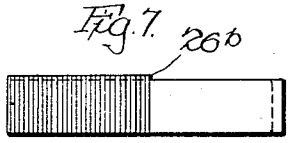


Fig. 8.

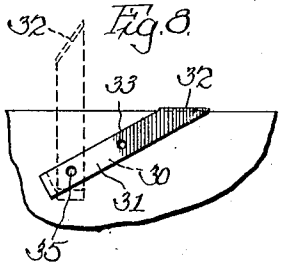


Fig. 10.

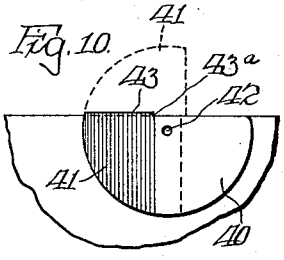
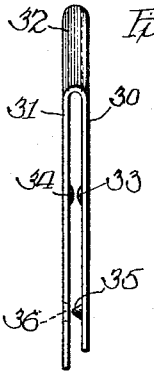


Fig. 9.



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UNITED STATES PATENT OFFICE

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SIGNAL DEVICE FOR RECORD SHEETS

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These improvements relate to signaling devices for record sheets. Such record sheets are the account leaves, sheets or pages of books, loose-leaf binders, etc., and also cards which may be kept in drawers or otherwise held for reference.

The prime object of the invention is to provide a simple, easily operated, low cost and effective signal device which is easily applicable to such record sheets and which may remain thereon indefinitely while having a part readily movable into and out of signaling position.

In its preferred form the device is in the nature of a clip which may be applied frictionally into engagement with opposite sides of the record sheet at an edge portion thereof, and, while being frictionally held on the sheet, may be rocked substantially in the plane of the sheet from a non-signaling attitude, and vice versa.

In this record sheet signal art there have been a large number of suggestions of clip-like devices adapted to be applied frictionally to the record sheet along a free edge thereof, with a signal part extending away from the holding part. None of the prior art devices, so far as I know and believe, contemplates or provides for swinging the signal part into or out of the signaling position. It would be possible to rock such prior art devices to some extent whereby the signal part would have an acute angle relation to the edge of the sheet, but the signal would still be exposed, and such devices have been designed for application to and removal from the record sheet to effect the signaling and non-signaling results. Such an acute angle position would not be within the meaning of the term "non-signaling" as used in this specification. According to the present invention the signal part is moved from the signaling position into a definitely non-signaling position when the signal feature is not desired. It may be visible along the edge of the sheet, but it is not standing out and away from the sheet to any substantial or material extent.

It has been suggested heretofore to provide a signal in connection with record sheets which rocks on the sheet into signaling and non-signaling positions as defined herein. Such prior devices, however, in all instances of which I am aware, have been secured permanently to the record sheet, with numerous disadvantages. For example it would scarcely ever be desirable to have all of the record sheets so marked, and such excess devices would be a needless expense. Importantly, too, it becomes desirable from time to time to invest a given record sheet with such signaling means for what may be a limited period of time only. Furthermore, such signals are preferably located at different places on different sheets in the book or drawer. When such sheet is filed away permanently there is no occasion for the signaling device.

The greatest advantage would be had if there were provided a suitable signal, occupying but a slight amount of space, easily applicable to different places as desired, and from time to time as needed, with ready removability, with different colors or other markings, etc., and these advantages are had according to the present device.

In the accompanying drawings which form a part of this specification Figure 1 shows in face view a fragment of a record sheet having my improved signal applied thereto in what I shall call the preferred form;

Fig. 2 is an enlarged side or face view of the signal device of Fig. 1;

Fig. 3 shows the blank from which the device of Figs. 1 and 2 is made;

Fig. 4 is a cross section on the line 4—4 of Fig. 2;

Fig. 5 shows the application to a record sheet of a modification over the device of Fig. 1;

Fig. 6 is a perspective of the device of Fig. 5;

Fig. 7 is the same as Fig. 2 with the omission of certain pivoting means;

Fig. 8 shows another modified form as applied to a record sheet;

Fig. 9 is an enlarged edge view of the device of Fig. 8; and

Fig. 10 shows another form somewhat modified over the devices of Figs. 1 and 5, and as applied to a record sheet.

Turning to Fig. 3 the blank illustrated is to be considered of thin and springy sheet material. Sheet spring steel several thousandths of an inch in thickness is suitable. Substances in the nature of celluloid, pyrolin, etc., may be employed. It comprises a body part 15 and a pair of legs 16 and 17 divided by a gap 18. There is preferably a bump or projection 19 in one of the legs as 16 and which is inwardly directed when the parts are folded. In the opposite leg as 17 there is suitably a hole 20 punched in the metal directly opposite the projection 19 and adapted to cooperate with it.

In order to form the structure of Fig. 2 from that of Fig. 3 the blank is bent over on the dotted line 21 so that the structure then has a main body part 15 comprising sides 15*a* and 15*b* (these two sides being indicated in Fig. 3) spaced apart slightly so that the record sheet as 23 (Fig. 1) may be encompassed, with a snug fit, by the opposite sides 15*a* and 15*b* along the edge 23*a* of the sheet.

After such bending or folding operation the legs 16 and 17 are also face to face with each other and are very close together and the free end of the projection 19 is projecting into the hole 20. These legs are shown spaced apart in some of the drawings for clearness of illustration, but it is to be understood that in practice the legs 16 and 17 will lie against each other, in the way usual with the non-swinging type of signal, the purpose being to provide a good frictional contact with the engaged sheet.

One of the legs as 17 is preferably a little longer than the other to facilitate the application of the clip to the record sheet.

There is thus formed, as shown by Figs. 1 and 2, a device which comprises a signal part marked 15 as a whole and the bifurcated part comprising the legs 16 and 17. The part 15 will ordinarily be colored and different ones may be differently colored to express different meanings to the user. The shading on some of these signal parts indicates the color red, while that on others indicates blue.

The dotted-line position of the signal in Fig. 1 shows the device in its signaling position while the full-line position of that figure shows it in its non-signaling position. It will be observed that when the clip is initially applied to the sheet as 23 in Fig. 1 and pushed into frictional engagement therewith, the application movement is arrested when the edge 23*a* of the sheet is encountered by the edge of the fold 26 at 26*a* (Fig. 2) and it will be noted that when the signal is swung into the non-signaling position of Fig. 1 the rounded edge or fold 26 engages and extends closely along the top edge 23*a* of the record sheet and limits the further movement of the signal device in that direction.

The parts 16 and 17 are in frictional contact with the sheet 23 and hold the signal in its upright or dotted-line signaling position of Fig. 1, and these parts 16 and 17 also remain in such frictional contact when the device is swung out of the signaling position into the non-signaling position of Fig. 1.

The swinging or rocking movement of the device takes place on the pivotal area provided by the projection 19, which indents the paper stock of the record sheet at the hole 20 and sufficiently locks the device in its operative position to hold it for such swinging movements with the projection 19 at the center of such movement.

Turning to Figs. 5 and 6 the construction is in all essential respects the same as already described, and the only difference is in giving the legs 16*a* and 17*a* an angular relation to the body 25. Fig. 5 shows that when the body or signal part 15 is in the non-signaling position the holding parts 16*a* and 17*a* are not immediately at the free edge 23*a* of the sheet 23. In some uses this would have some advantage since these legs are thus more out of the way and less likely to be moved inadvertently by the operator's fingers while turning the pages or fingering the cards.

Fig. 7 differs from Fig. 1 only in the omission of the hole 20 and the projection 19. The device of Fig. 7 may be applied to the sheet and rocked on the stop 26*b* (which is the same as the stop 26*a* in Fig. 2) which stop acts as a fulcrum in Fig. 7 engaging the free edge of the sheet. In using the device of Fig. 7 it will be found that there is a tendency of the device as a whole to slide about slightly on the sheet while it is being operated so that a final adjustment of the device may be called for unless some care is taken when the device is moved from one position to another. Where the pivoting means are provided, however, the operator simply throws the signal part 15 from one position to the other and the device does not move bodily sidewise or in or out on the sheet.

Turning to Figs. 8 and 9 we find the entire device in the form of a pair of leaves 30 and 31 bent over at 32 so as to lie face to face with each other and close together so as to provide spring pressure between them sufficient to clamp the paper frictionally when the device is caused to engage opposite sides of the sheet. The parts 30 and 31 have inwardly directed projections at 33 and 34 which serve as a stop to limit the application of the device to the sheet. The operator can readily feel when these projections reach the top of the sheet. There is a pivoting projection at 35 adapted to enter a hole at 36 and thus provide pivoting means in all respects the same as means 19 and 20 in other figures. These pivoting means are near the free end of the clip device. The bend at 36 is on a diagonal line so that when the clip is in the non-signaling position as shown in Fig. 8 there will be only

that small bent over edge 32 visible. The frictional contact of the projections 33 and 34 is relatively small compared with that of the pivotal contact at 35 and 36 so that when the device of Fig. 8 is swung or rocked from one position to another the projections 33 and 34 will slide upon the paper while the pivoting means at 35 and 36 remain fixed.

In Fig. 10 the construction is essentially the same as in Figs. 2 and 6, the only difference being that the bifurcated holding part or springy leaves at 40 and the signal part at 41 combine in side view to form a semi-circular shape. The pivot at 42 is the same as already described as are the folded edge 43 and stop 43*a*. This construction provides a greater area for frictional contact with both sides of the sheet and also a larger signal part. The dotted lines of Fig. 10 show the signaling position.

I contemplate as being included in these improvements all such changes, variations and departures from what is thus specifically illustrated and described as fall within the scope of the appended claims.

I claim:

1. A sheet signal of the character described having a holding part formed of springy material and adapted to be slipped frictionally upon opposite sides of a record sheet adjacent to an edge thereof, and a signal part extending from said holding part, the holding part being adapted to rock frictionally upon the record sheet when the signal part is swung substantially in the plane of the record sheet, the signal part being formed to lie in a non-signaling position near the edge of the record sheet when the signal part is in one position and to extend away from the edge of the record sheet and substantially in the plane thereof, when in another position, to form a signal, the holding part having such frictional engagement with the record sheet as to hold the signal part in said last-mentioned position.

2. A sheet signal of the character described formed of thin sheet material comprising a bifurcated holding part adapted to be slipped frictionally upon opposite sides of a record sheet adjacent to an edge thereof, and a signal part extending from said bifurcated part, means forming a stop limiting the extent to which said bifurcated part may be applied to the record sheet, the bifurcated part being adapted to slide frictionally upon the sheet with a rocking motion with said stop means remaining adjacent to the edge of the record sheet, the signal part being formed to extend longitudinally along the edge of the sheet in one position and to extend away from the edge of the sheet and substantially in the plane of the sheet to form a signal in another position, the frictional contact of the bifurcated part with the record sheet being such as to hold said signal part in said last-mentioned position.

3. A sheet signal of the character described formed of thin, flat and springy sheet material comprising a bifurcated holding part adapted to be slipped frictionally upon opposite sides of a record sheet adjacent to an edge thereof, and a signal part formed from the material folded upon itself and extending from said bifurcated part, the folded signal part being adapted to receive edge portions of the record sheet between the folds of said signal part, said holding part being adapted to slide frictionally upon the record sheet with a rocking motion, the signal part being formed to encompass edge portions of the record sheet in one position and to extend away from the edge of the record sheet and substantially in the plane thereof, to form a signal in another position, the frictional contact of the holding part with the record sheet being adapted to hold said signal part in said last-mentioned position.

4. A sheet signal of the character described consisting of a holding part and a signal part, the holding part comprising a pair of springy leaves face to face and adapted to be slipped frictionally upon a record sheet from an edge thereof with the record sheet between said leaves, at least one of said leaves having pivoting means providing a pivoted area thereon whereby the holding part may rock frictionally upon the record sheet with said pivoted area at the center of such rocking movement, and a signal part carried by said holding part to assume signaling and non-signaling relative positions respectively when the holding part is rocked on said pivoting means.

5. The device of claim 4 hereof in which said pivoting means comprise a small inwardly-directed projection in the material of one of the leaves.

6. The device of claim 4 hereof in which said pivoting means comprise a small inwardly-directed projection on one of the leaves and there is a cooperating oppositely-disposed opening in the other leaf.

7. The combination of claim 4 hereof in which said pivoting means are so positioned as to be close to the edge of the record sheet when the device is normally applied thereto.

CLARE H. LAW.