

July 5, 1932.

LE ROI E. HUTCHINGS

1,866,352

VISIBLE INDEX

Filed Sept. 1, 1927

2 Sheets-Sheet 1

Fig. 1

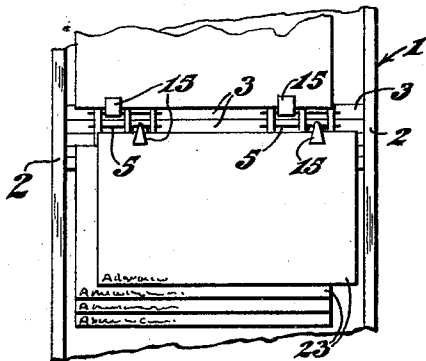


Fig. 6

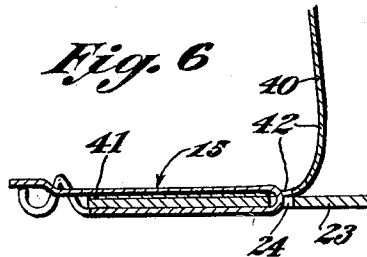


Fig. 9

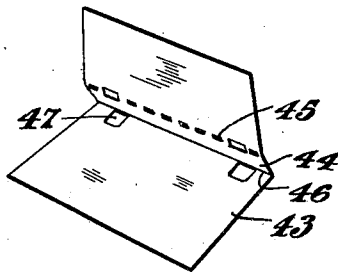


Fig. 7

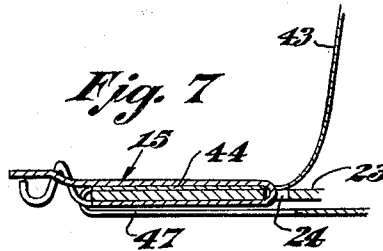


Fig. 10

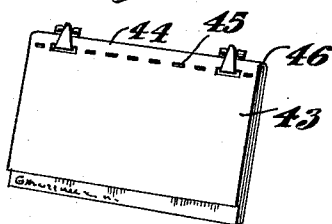
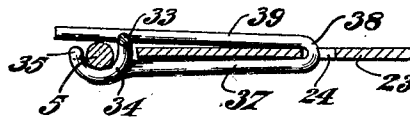


Fig. 8



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2 Sheets-Sheet 2

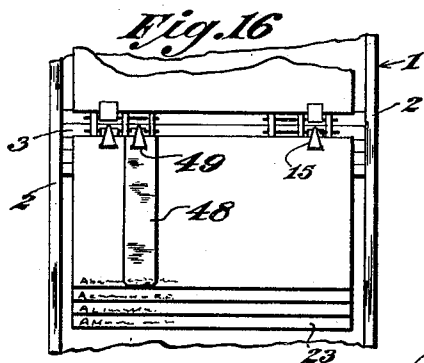
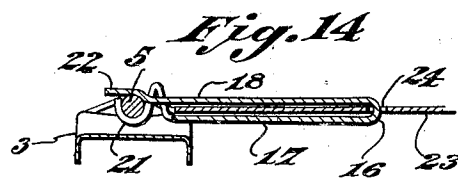
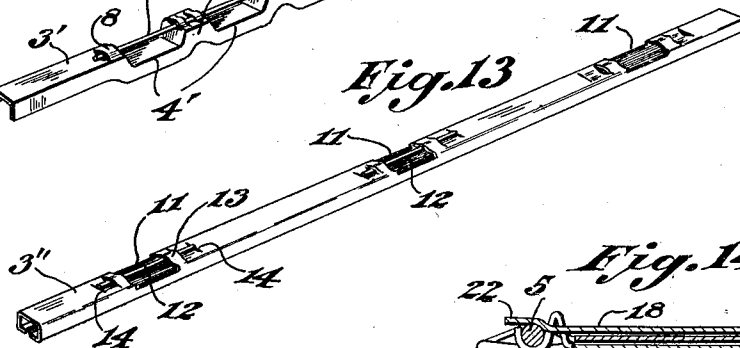
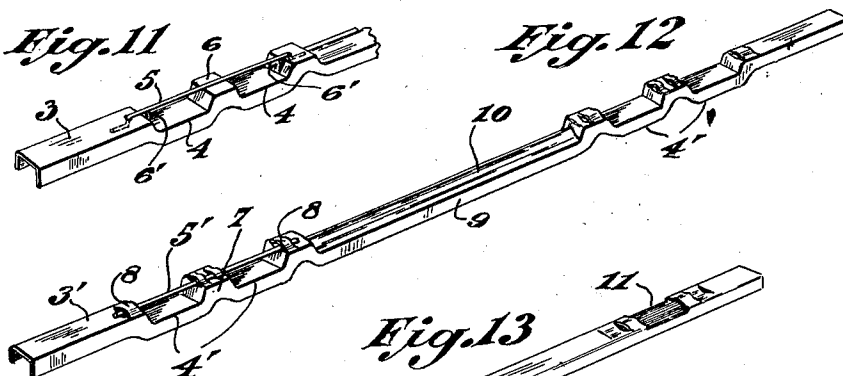
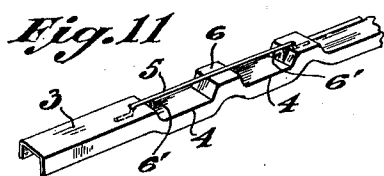
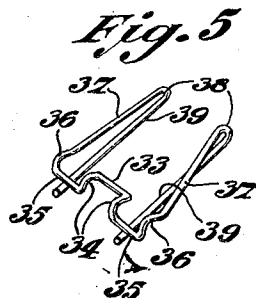
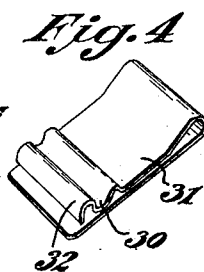
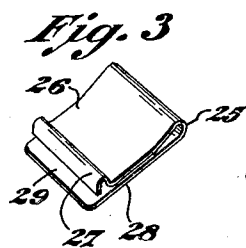
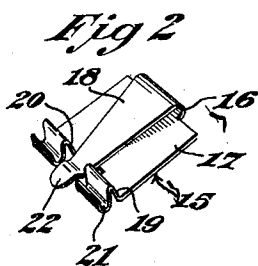


Fig. 15

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UNITED STATES PATENT OFFICE

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VISIBLE INDEX

Application filed September 1, 1927. Serial No. 216,896.

This invention relates to improvements in visible index equipment and particularly to a card and signal mounting.

This invention is designed to provide a card holder which will engage and retain a card against movement therein and which is adapted for detachable cooperation with a suitable supporting element in such a manner that the card will be readily removable from the supporting element and at the same time will be effectively secured thereto in attached relation to prevent accidental disengagement.

An object of the invention is to provide a visible index in which cards or sheets of relatively cheap light-weight material may have card holders readily applied thereto so that the sheets may be detachably connected to suitable supporting elements mounted in spaced relation so that the lower edges of the cards when lying one upon the other will be relatively offset.

A further object of the invention resides in providing a card or signal holder having a card or signal receiving portion and a support-engaging portion, and also cooperating means to retain a card and support engaged therewith, and which may be readily detached from the support or card.

Another object of the invention is to provide a card holder of simple construction which is cheap to manufacture and which may be readily applied to a bar or other support through the cooperation of suitable resilient portions of the holder, formed during its construction.

A further object of the invention is to provide a holder which will suitably space the inner edges of the cards from the supporting elements so that the cards may be freely rotated about the supporting elements on a plurality of card holders which are adapted to be simultaneously engaged or disengaged from the supporting elements.

The invention further comprehends the provision of visible index equipment utilizing these novel card holders with suitable supporting elements which are adapted to permit lateral shifting of the cards to offset certain cards with respect to others in an

index panel, and with which a signal may be interchangeably associated so as to utilize one of the supporting elements for the cards. In this connection the invention includes a new combination in providing for the mounting of the signal on the supporting element in detachable relation, independently of the detachable mounting for the index cards.

A further feature of the invention resides in the association of this card mounting and holding structure of extra sheets adapted to be associated with each card for mounting in the front and rear thereof which are retained in position by the special cooperation between the card, the sheets and the card holders.

The invention comprehends numerous other objects residing in the combination of parts, and the specific construction and association of these parts which are more particularly pointed out in the following detailed description directed to the preferred forms of the invention, it also being understood, that various other changes in the relation, construction, and association of the parts may be made without departing from the spirit and scope of the invention as herein set forth.

In the drawings forming part of this application,

Fig. 1 is an elevation illustrating a group of cards mounted on suitable supporting elements carried by a panel showing the relation of the parts when assembled and also illustrating how one or more cards may be offset with respect to the others in accordance with the provisions of this invention.

Figs. 2, 3, 4 and 5 are perspectives illustrating several forms of card holders.

Fig. 6 is a sectional view through the inner edge of a card showing a card holder similar to that of Fig. 2 applied to the card in accordance with this invention, and further illustrating how a sheet is retained in assembled relation on the upper face of a card by the holder.

Fig. 7 is a view similar to Fig. 6 illustrating a double sheet applied to the card having a strip portion retained against the front face of the card by the card holder and having

portions hinged to the opposite edges of the strip portion and lying in front and in back of the card respectively.

Fig. 8 illustrates the application of a card holder as shown in Fig. 5 to a card and a supporting bar or element, the parts being shown in transverse section and substantially enlarged.

Fig. 9 is a perspective illustrating the double sheet structure shown in Fig. 7 with the front and back leaf portions separated to illustrate the details of construction.

Fig. 10 is a perspective illustrating the double sheet structure applied to a card the same as in Fig. 7 with the card holders applied for retaining the central strip portion of the sheet in position on the card.

Figs. 11, 12 and 13 illustrate spacing bar constructions carrying the supporting elements for the card holders, each showing different types of construction adapted for obtaining special advantages in the use of the card holders.

Fig. 14 is a transverse sectional view through one of these supporting bars or elements illustrating a card holder as shown in Fig. 2 applied thereto, the card holder having a card connected thereto, and having the resilient retaining tongue on the upper side of the card in its normal position in a panel.

Fig. 15 is a view similar to Fig. 14 showing the card holder in a reversed position with the retaining tongue on the underside of the card in its normal position in a panel.

Fig. 16 illustrates how a signal may be interchangeably applied to the supporting elements for cooperation with a card carried thereby.

A panel or the like is indicated at 1 which may be of any desired form as used in connection with visible index equipment well known in the art, and is provided with guide channels 2 at the opposite sides. Supporting and spacing bars 3 are applied transversely of the panel 1 and have the end portions extending into the channels 2 by which they are secured in the panel as shown in Fig. 1 in adjacent contacting relation.

These supporting bars 3 may be constructed as shown in Figs. 11, 12 or 13, of inverted U-shaped form as shown in Figs. 11 and 12, and of substantially tubular form as shown in Fig. 13. In Fig. 11, showing one end portion of one supporting bar, a pair of offset portions 4 are provided adjacent the ends of the bar while a supporting element in the form of a wire or rod 5 extends over these offset portions 4 and has the end portions secured to the body of the bar 3 as illustrated, or in any other desired manner known to the art. The central portion of this supporting element 5 engages with the portion 6 of the bar between these offset portions 4 so that a card holder engaged therewith in a manner which will be described will be retained op-

posite one of these offset portions. Stops 6' are struck out of the body of bar 3 at the ends of the offset portions to engage the card holders and align the cards in a panel.

The bar 3' as illustrated in Fig. 12 is constructed similar to that shown in Fig. 11 having the pairs of offset portions 4' adjacent the opposite ends thereof over which extend the supporting elements 5'. In this construction the supporting elements are anchored to the bar in a slightly different manner from that shown in Fig. 11, both at the ends and in the raised central portion 7. The bar is secured through the binding action of the upwardly struck strip portions 8 extending over the elements and rigidly binding the ends against the surface of the bar. Between these offset portions 4', the central portion of the bar is offset in a similar manner as illustrated at 9 in Fig. 12. The central part of this offset portion 9 is round or beaded lengthwise as indicated at 10 in order that the inner edges of the cards when applied in the panel will not catch on the edges of the bar in flexing during the movement of the cards around the supporting elements. The central portion of the bar as shown in Fig. 11 is formed similar to the central portion 9. This offsetting of portions of the bars 3 and 3' as shown in Figs. 11 and 12 provides for a saving in material and at the same time places the ends of the bars at the proper height above the bottoms or backs of the panels to engage the upper faces of the guide channels 2. The bars are thereby retained against movement laterally in the panel.

In Fig. 13 the bar 3'' is of tubular formation as above mentioned and instead of having the offset portions, it is provided with cut-out sections 11 at the end portions and which may also be provided at the central portion as illustrated to obtain the proper clearance space for the reception and operation of the card holders. The supporting elements for the card holders are indicated at 12 and have their opposite ends extending under the strips 13 which secure them rigidly on the upper face of the bar. Suitable shoulders 14 may be provided by slightly depressing the upper surface of the bar which receives the ends of the supporting elements in order to prevent endwise movement on the bar.

A card holder for association with the supporting elements is indicated at 15 in Fig. 2 which is formed of a thin strip of material folded in its central portion as indicated at 16, one end portion of which is wider as indicated at 17 than the opposite end portion 18. The portion 17 is substantially flat throughout its length to provide a card-engaging portion which is provided at the free end with the laterally extending flange 19 bifurcated as indicated at 20 and having

the terminals of the bifurcated portion formed into a substantially U-shaped or semi-circular portion 21 extending from flange 19 and adapted to receive the supporting element on the spacing bars 3. The portion 18 of the card holder is tapered toward its free end as illustrated in Fig. 2 which extends beyond the ends of the bifurcated portion 20 and beyond the supporting element receiving portions 21. The terminal of portion 18 is offset slightly as indicated at 22 to provide a support-engaging lip adapted to aid in the ready application of the holder to the supporting element. The portion 18 is normally held by its own resiliency in substantial contact with the portion 17 so as to clamp the upper edge portion of a card in the card-holding portion of the holder and also to hold the supporting element receiving portion 21 in engagement with a supporting element. The holder is applied to a card 23 as illustrated in Fig. 14, by insertion of tongue 18 through the slot 24 formed in spaced parallel relation to the inner edge of the card so that the edge portion of the card is seated in the portion 17. A pair of these card holders are usually applied to a card as illustrated in Fig. 1 adjacent the opposite end portions.

These card holders are applied with the card to the supporting elements as shown in Fig. 14 with the element-engaging portions 21 on the under side of the supporting elements while the tongues 18 are on the upper side thereof. To apply these holders in this position to the supporting elements they are grasped between the fingers placed at opposite ends of the card 23 and the offset portions 22 are moved into engagement with the supporting elements. Then, by depressing or pressing downwardly on the card holders simultaneously the tongues 18 will be flexed to permit movement of the element-receiving portions 21 and the portion 17 away from the portion 18 as a result of which the element-receiving portions 21 may be passed around and below the supporting elements and the card holders moved into the engaged position. When it is desired to remove the card and the holders from the supporting element this may be done by rotating the card holders to an inclined position about the supporting elements and then through grasping the card and the card holders adjacent to the portion 16 and pressing downwardly the tongues 18 will be flexed again to permit the movement of the portions 21 away from the supporting elements, as a result of which the holders may be readily and simultaneously detached.

When these holders are in the attached position the tongues 18 cooperate with the support-engaging portions 21 in such a manner that by exerting a pull lengthwise or in the plane of the card 23, the card holders will not become detached from the supporting

elements. Accidental disengagements of the cards during normal use for indexing is thereby prevented.

The card holders may be applied in the opposite position as shown in Fig. 15 with the tongues on the upper side of the supporting elements. In this relation which may be preferred, pressure is exerted laterally to the plane of the card, and upwardly to flex the tongues 18 during application or removal of the card holders from the supporting elements.

In Fig. 3 the card holder is of slightly different form from that illustrated in Fig. 2, being formed of a strip of uniform width bent intermediate its ends at 25 to provide at one side of the bend or fold the card-receiving portion 26 and the support-engaging portion 27 while the strip at the opposite side of the fold 25 is substantially straight as indicated at 28 and extends beyond the portion 27 to provide the operating lip 29 by which the portion 28 may be flexed away from the portions 26 and 27 in applying the holder to a card and to a supporting element.

In Fig. 4 the card holder is similar to the construction shown in Fig. 3 and in addition, is provided with the projecting portion 30 between the card-receiving portion 31 and the supporting element receiving section 32 to form a stop for preventing the card from riding upwardly in the card holder and preventing the card from interfering with efficient cooperation of the holder and supporting element.

A wire clip is illustrated in Fig. 5 formed of a suitable length of wire having a central portion 33 from which the ends extend laterally in curved relation as shown at 34 and terminate in the offset portions 35 parallel with the portion 33. At the ends of the portions 35 which extend outwardly in opposite directions from the portions 34 the wire is formed into the curved sections 36 which are in alignment with the curved portions 34 and cooperate therewith to provide for the reception of a supporting element. The ends are then extended as indicated at 37 and converged toward each other, these ends 37 extending substantially at right angles to the portions 33 and 35 as clearly illustrated in Fig. 5. The ends of the wire are then formed with the return bends 38 so that the terminals lie in substantially parallel relation as indicated at 39 and engage the portions 35 adjacent the free ends. With this wire clip it will be noted that the portions 37 form the card-receiving portion similar to the previously described forms of the card holder, while the portions 34 and 36 form the supporting element receiving portion. The central portion 33 is formed to lie between the ends 39 so as to prevent the inner edge of a card 23 from riding upwardly against the supporting element. This relation of the

parts is illustrated in Fig. 8 showing how the wire clip in Fig. 5 is applied to a card and a supporting element. The free ends of the portions 39 extend beyond the portions 35 and provide supporting element engaging lips by which the portions 39 may be flexed away from the portions 35 to permit application and removal of the wire clip from engagement with a card and a supporting element, in the manner above described.

Referring particularly to Fig. 6, there is illustrated in addition to the card 23, a sheet 40 which has a strip portion 41 adjacent the inner edge of the card in coincident relation with the card and connected to the remaining portion of the sheet by a hinged portion at 42 formed by perforations or otherwise and with openings for registry with the slots 24 in the card to receive the card holders 15. When the card holders are applied to the assembled card and sheet the strip portion is held in contact with the sheet as shown in Fig. 6 while the remaining portion of the sheet may be flexed upwardly for indexing use. This provides a construction in which one or more sheets may be superposed on the card 23 and provide additional record space in which the sheets are usually shorter than the card so as not to interfere with the exposed edges of the card and in which the card holder retains the sheets and card in the proper assembled relation.

With particular reference to Figs. 7, 9 and 10, a folded sheet is illustrated at 43 having a central strip portion 44 to which the remaining portions of the sheet are hinged at 45 and 46 respectively. The hinge 46 is at the folded edge of the sheet as illustrated in Figs. 7 and 10 which is applied over the inner edge of the card. The strip portion 44 is engaged against the front face of the card and held in intimate relation therewith by the card holders 15 while the portion of the sheet overlying the front face of the card may be flexed upwardly along the hinge 45 in the same manner as with the sheet shown in Fig. 6. The back section of the sheet 43 adjacent to the hinge 46 is provided with elongated openings 47 for the card holders. With this construction, and when the card 23 is lifted, the card holder will rotate about the supporting elements while the openings 47 will permit the flexing of the back section of the sheet along the hinge 46 so that access may be obtained to records used on this sheet. In this construction the card holders again cooperate with the card and the sheet to effectively retain the central strip section 44 engaged with the inner edge of the card.

With the use of bar constructions as shown in Figs. 11 and 12 in an assembled index structure as shown in Fig. 1 the card holders 15 may be applied so that the cards may be secured to the bars in either of two positions,

providing for lateral offsetting of one or more cards with respect to the others to obtain advantages in filing systems used for accounting records. With the construction shown in Fig. 11 the offsetting may be obtained by sliding the holders along the supporting elements in one direction or the other across the central portion 6. This will cause a flexing of the supporting elements relative to the portions 6 which will act as a latch or stop to normally prevent the sliding of the card from one position to the other. With the construction shown in Fig. 12 the offsetting is obtained by detaching the holders from the supporting elements and shifting and applying them to the elements in the other position. The arrangement of the cards as shown in Fig. 1 illustrates both positions in which the cards may be applied to the supporting elements in obtaining this offsetting feature.

A further advantage of this offsetting feature is illustrated in Fig. 16 in which a signal is used which is indicated at 48 having a slot 49 at the inner end for receiving one of the card holders 15. The signal may be detachably and interchangeably applied to the supporting element structure as shown in Fig. 1 for signalling cooperation with the card secured on the same element. This provides an independent mounting for the signal and the card so that they may both be readily applied and removed from the supporting elements.

Where cards of unusual width are used and in order to facilitate the use of light-weight cards or paper the structure as shown in Fig. 13 may be employed with card holders applied in the central portion to provide an additional support. Any number of holders may be employed in carrying out this feature in accordance with the size of card used. The offsetting feature obtained by the construction as shown in Figs. 11 and 12 may be combined with this supporting connection as shown in Fig. 13 through using pairs of supporting elements in the intermediate section of the bar as well as the end sections. The construction shown in Fig. 13 may also be employed for mounting signals.

What is claimed is:

1. A card holder, comprising a strip member formed to provide a card-engaging portion, a support-embracing portion, and another portion for cooperating with the aforementioned portions to hold the card and for retaining said support-embracing portion in engaged relation with a support to prevent detachment under longitudinal pull, and operable to permit engagement and detachment thereof from the support under lateral pressure.

2. A card holder, comprising a card-engaging portion, and a support-engaging portion and having a substantially straight retaining tongue adapted to permit a card to be readily inserted upon said card-engag-

ing portion, and to retain said card thereon and the support-engaging portion on a suitable support.

3. In combination, a supporting member, an index card, a card holder associated with said index card, and an element mounted on said supporting member detachably receiving said card holder, said supporting member being offset laterally adjacent said element to accommodate said holder.

4. In combination, a supporting element, an index card, a card holder detachably mounting said index card on said element, a signal, and a clip independently mounting said signal on said supporting element in superimposed relation on said card for signalling cooperation therewith.

5. In combination, a supporting element, an index card, a card holder associated with said card and detachably engaging said supporting element in either of a plurality of positions, and a signal having means for engaging said supporting element in either of said plurality of positions interchangeably with said card holder.

6. In combination, a supporting element, an index card, a sheet having one edge coincident with said card, and a card holder engaging said card and sheet and retaining said coincident edge on the sheet engaged with said card, said card holder detachably securing said card and sheet on said supporting element.

7. In combination, a supporting element, an index card, a sheet having a strip portion along one edge coincident with one edge of the card, a card holder engaging and retaining said strip portion, and the card in adjacent relation, said card holder detachably mounting said card and sheet on said supporting element, and a hinge portion connecting said strip portion to the remainder of the sheet.

8. In combination, a supporting element, an index card, a sheet having a strip portion with one edge coincident with one edge of the card, a card holder engaging and retaining the card and strip portion in adjacent relation, said card holder detachably mounting said card and sheet on said supporting element, and a hinge portion at opposite edges of said strip portion connecting the remaining portions of the sheet thereto.

9. A card holder, comprising a folded strip adapted to be passed through an opening in the card end to embrace the opposite faces of a marginal portion of said card, the ends of the strip adapted to project beyond the edge of said card and being formed for coaction in opposed relation to detachably embrace a support.

10. In combination, a supporting member, a record card having slots formed adjacent a margin thereof, and card holders formed of folded strips engaged in said slots, each

card holder embracing a marginal portion of said card and having the free ends of the strip projecting beyond the edge of the card and formed for complementary embracing cooperation with the supporting member to detachably hinge said record card thereon.

11. A card holder, comprising a member formed with a card-holding portion and a support-embracing portion, said card-holding portion having auxiliary means for releasably retaining said support-embracing portion in engagement with a support.

12. A card holder, comprising a member formed with a card-holding portion and a support-embracing portion, said card-holding portion having an extension for normally holding said support-embracing portion in engagement with a support, said extension being laterally movable from said support-engaging portion to engage and disengage said support-embracing portion with a support.

13. A card holder, comprising a support-embracing portion, a card-engaging portion including resilient means having an extension opposed to said support-embracing portion and normally cooperating therewith to retain said support-embracing portion engaged with a support, said support-embracing portion also cooperating with said resilient means of said card-embracing portion to prevent detachment of a card therefrom.

14. A card holder comprising a folded strip, one extremity of one fold of said strip being formed with a support-engaging portion, the remainder of the strip forming a card-holding portion with the other fold adapted to resiliently engage a card therein and also extending to releasably retain said support-engaging portion in engagement with a support.

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