June 9, 1931. F. D. POWELL 1,809,066

VISIBLE INDEX OR RECORD SYSTEM

Filed Feb. 5, 1930

Fig. 1.

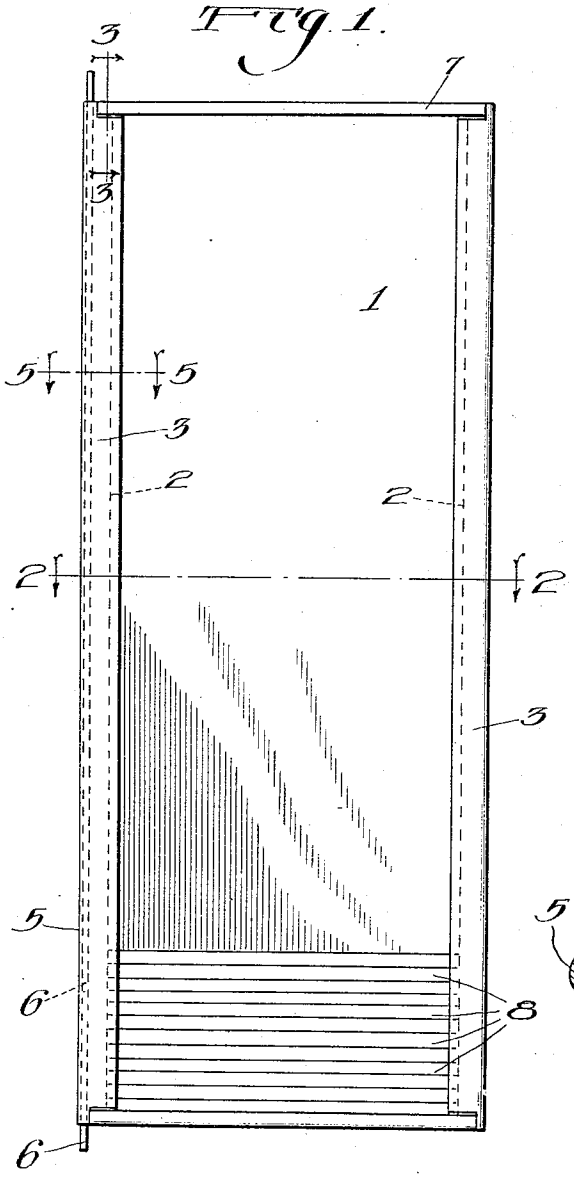


Fig. 3.

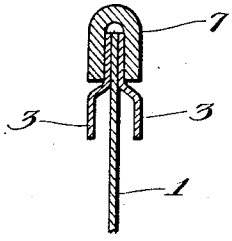


Fig. 4.

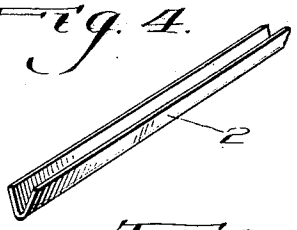


Fig. 5.

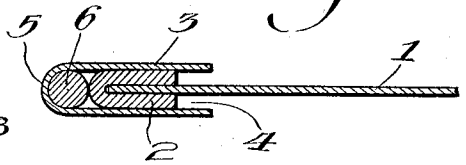
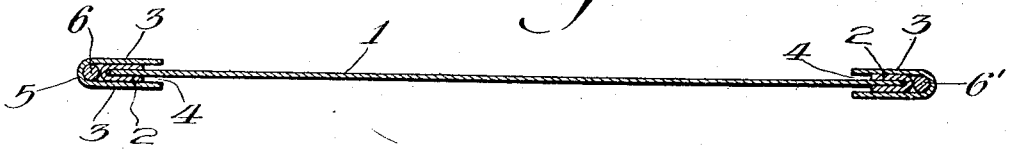


Fig. 2



Witness:
Stephen V. Rebora

Inventor:
Frank D. Powell,
By Frank L. Belknap
Atty.

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UNITED STATES PATENT OFFICE

FRANK D. POWELL, OF CHICAGO, ILLINOIS, ASSIGNOR TO ACME CARD SYSTEM COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS

VISIBLE INDEX OR RECORD SYSTEM

Application filed February 5, 1930. Serial No. 426,021.

The present invention relates to a support or frame designed to hold, in a small space, a large number of individual index or other data-containing elements such as index strips, record cards or the like, in adjacent and/or overlapping relation. The frame may be used as a tray in a drawer in combination with others in a suitable cabinet, or may be used with any other type of stand or support.

In the use of such devices it is desirable to provide for, and permit, expansion without interfering with the sequence in which the individual strips or cards are positioned. To permit such function it is necessary to provide marginal flanges forming opposed channels on the frame in which channels the side edges of the cards or strips are adapted to engage. Thus, when it is desired to interpose another strip or card in the frame any number of the strips or cards already in order and engaged with the flanges may be slid upwardly or downwardly, as the case may be, to provide sufficient space for the insertion of a strip or card.

My invention briefly described comprises a web, having a sheet of bendable material folded over and binding each longitudinal edge of said web, the opposed faces of which are secured to the web, said sheet of bendable material being of sufficient thickness to provide spacers. A second sheet of bendable material preferably of less thickness but of greater width than the first mentioned sheet, is folded over the first mentioned sheet in such a manner as to project beyond the inner edge of the first mentioned sheet a sufficient distance to provide a flange. The bent portion of the U thus formed in the second sheet may be spaced a sufficient distance from the bent portion of the first mentioned sheet to accommodate a reinforcing rod, which extends substantially the entire length of the web and may project above and/or below the web to form a pintle.

It is an object of the present invention to provide a type of construction which has certain features of novelty and utility over those known to the prior art.

As a feature of the present invention, the device may be made in a simple and economical manner from sheet material.

Other objects, features and advantages of the present invention will be apparent from the following detailed description.

In the drawings, Fig. 1 is a front elevational view of the frame of the present invention.

Fig. 2 is a cross sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is a cross sectional view taken on line 3—3 of Fig. 1.

Fig. 4 is a fragmentary perspective view of a portion of the spacer strip.

Fig. 5 is a cross sectional view taken on line 5—5 of Fig. 1.

Referring more in detail to the drawings, a sheet of suitable material such as metal, wood, fibre or the like may be cut to form a flat web 1. On the upper and lower surfaces adjacent each opposite edge of this web may be mounted a member 2. The member 2 before being mounted upon the web 1 may take the form of a V section angle bar, as shown best in Fig. 4. The inner juncture of the two legs of the V may be disposed adjacent each longitudinal edge of web 1 and may be clamped and suitably fastened by means of screws, rivets, spot welding or the like, to each face to the web. The angle bars 2 are preferably of sufficient thickness to serve as spacer plates when clamped upon the web. The longitudinal edges of the web 1, including the angle bars 2 clamped thereon may be enclosed by folded or U-shaped marginal members 3, the free edge portions of which preferably extend over opposite surfaces of the web beyond the inner edges of the spacer strips 2 to form opposed continuous grooves or channels 4. These marginal members 3 preferably embrace the spacing strips 2, being secured thereto by any conventional means, such as spot-welding, rivets, cement, or the like.

The folded portion 5 of the marginal members 3 may be spaced a sufficient distance from the U-bends of spacer strip 2 to accommodate reinforcing rods 6 and 6′ at opposite edges of the web 1, respectively. The opposite ends of the rod 6 preferably project beyond the

upper and lower edges of the frame forming pintles whereby the frame may be pivotally mounted in a suitable support (not shown), while the ends of the opposite rod 6′ may terminate flush with the upper and lower edges of the frame. By this construction, the rods 6 and 6′ reinforce the opposite edges of the web, stiffening to a marked degree the entire assembly and permitting the use of a smaller gauge web material, which in turn tends toward lightness of construction. The channels 4 formed between the marginal members 3 and the web 1 may be closed at their upper and lower ends by means of the marginal closure members 7.

In the utilization of the invention, the flexible strips 8 which are adapted to bear or receive data may be mounted in the device (as shown), the ends of the strips 8 being caused to engage in the channels 4 formed by the extensions of the marginal members 3.

The strips 8 may be readily engaged with and disengaged from the channels 4 by flexing them intermediate their length. If it is desired to add other strips to the device intermediate the group of strips already mounted therein, any number of the strips already mounted in the device may be slid upwardly or downwardly as the case may be, and the strip, or strips, to be added may then be fitted into the space formed and engaged with the groove 4 in the manner described.

Thus, the system may be expanded without interfering with the sequence of the individual elements.

While I have shown rods 6 and 6′ at each respective longitudinal edge of the web 1, it is to be understood that the rod 6′ may be removed if desired, for instance, if apertures are to be formed in the marginal member 3 for the reception of index tabs or the like.

The provision of the spacer strip 2 of one piece of material bent into contact with each face of the web, provides an efficient and economical structure, inasmuch as the folded angle bar not only serves as a spacer strip, but also provides additional reinforcement for the web, and can be mounted in position upon said web quickly and conveniently.

I have illustrated the use of the frame of the present invention with index strips. It is to be understood that this illustrates merely one use of the invention; in its broad aspects the invention contemplates the provision of a frame adapted for use with visible index or record systems wherein index strips, hangers for record cards, or other data-containing elements may be mounted.

From the foregoing it will be apparent to those skilled in the art that I have provided a relatively strong and rigid frame which can be economically and quickly manufactured because of the utilization of flat sheet metal. Thus, from a manufacturing standpoint I eliminate unnecessary parts, and with the exception of the reinforcing rods all of the stock consists of flat sheet material which can be readily bent to form the desired marginal closure members.

I claim as my invention:

1. In combination, a flat web, a spacer strip comprising a sheet of bendable material folded over and enclosing one edge of the web and mounted on and secured to opposite faces of the web adjacent said edge, a second sheet of bendable material folded over and enclosing said spacer strip and the edge of the web, said second sheet of bendable material extending over a face of the web beyond the inside edge of said spacer strip to form a channel.

2. In combination, a flat web, a spacer strip comprising a sheet of bendable material folded over and enclosing one edge of the web and mounted on and secured to opposite faces of the web adjacent said edge, a relatively thinner second sheet of bendable material folded over and enclosing said spacer strip and the edge of the web, said second sheet of bendable material extending over a face of the web beyond the inside edge of said spacer strip to form a channel.

3. In combination, a flat web, a spacer strip comprising a sheet of relatively thick bendable material folded over and enclosing an edge of said web, a second sheet of relatively thin bendable material folded over said spacer strip and enclosing the spacer strip and the edge of the web, said latter sheet of bendable material extending over the face of the web beyond the inside edge of said spacer strip to form a channel.

4. In combination, a flat web, a spacer strip comprising a sheet of relatively thick bendable material folded over and enclosing an edge of said web, a second sheet of relatively thin bendable material folded over said spacer strip and enclosing the spacer strip and the edge of the web, said latter sheet of bendable material extending over the face of the web beyond the inside edge of said spacer strip to form a channel, the width of the channel being determined by the thickness of said spacer strip.

5. In combination, a web, a sheet of bendable material folded over and enclosing one edge of the web, said sheet of bendable material being of sufficient thickness to provide a spacer, a second sheet of bendable material enclosing said first-mentioned sheet of bendable material and projecting beyond the inner edges thereof a sufficient distance to provide a flange, a rod extending substantially the entire length of the web and interposed between the two folded sheets of bendable material substantially at the line of fold thereof, the bent portion of the second sheet of bendable material being spaced a sufficient distance from the bent portion of the first-

mentioned sheet to accommodate said rod.

6. In combination, a web, a sheet of bendable material folded over and enclosing one longitudinal edge of the web, said sheet of bendable material being of sufficient thickness to provide a spacer, a second sheet of bendable material enclosing said first-mentioned sheet of bendable material and projecting beyond the inner edges thereof a sufficient distance to provide a flange, a rod extending substantially the entire length of the web and interposed between the two folded sheets of bendable material substantially at the line of fold thereof, the bent portion of the second sheet of bendable material being spaced a sufficient distance from the bent portion of the first-mentioned sheet to accommodate said rod.

7. In combination, a web, a sheet of bendable material folded over and enclosing one edge of the web, said sheet of bendable material being of sufficient thickness to provide a spacer, a second sheet of bendable material of less thickness than the first-mentioned sheet enclosing said first-mentioned sheet of bendable material and projecting beyond the inner edges thereof a sufficient distance to provide a flange, a rod extending substantially the entire length of the web and interposed between the two folded sheets of bendable material substantially at the line of fold thereof, the bent portion of the second sheet of bendable material being spaced a sufficient distance from the bent portion of the first-mentioned sheet to accommodate said rod.

8. In combination, a web, a sheet of bendable material folded over and enclosing one edge of the web, said sheet of bendable material being of sufficient thickness to provide a spacer, a second sheet of bendable material enclosing said first mentioned sheet of bendable material and projecting beyond the inner edges thereof a sufficient distance to provide a flange, a rod extending substantially the entire length of the web and projecting above and below the web to form a pintle and interposed between the two folded sheets of bendable material substantially at the line of fold thereof, the bent portion of the second sheet of bendable material being spaced a sufficient distance from the bent portion of the first-mentioned sheet to accommodate said rod.

9. In combination, a web, a sheet of bendable material folded over and enclosing one edge of said web, the opposed faces of which are contiguous with the web, said sheet of bendable material being of sufficient thickness to provide spacers, a second sheet of bendable material of sufficient width to project beyond the inner edges of the inner sheet of bendable material to provide flanges spaced from the web a distance equal to the thickness of the inner sheet of bendable material, a supporting rod extending substantially the entire length of the web and projecting above and below the web to provide pintles and interposed between the two folded sheets of bendable material substantially at the line of fold thereof, said second sheet of bendable material enclosing said first-mentioned sheet of bendable material and enclosing said supporting rod between it and said first mentioned sheet of bendable material.

10. In combination, a web, a sheet of bendable material folded over and enclosing one edge of said web, the opposed faces of which are contiguous with the web, said sheet of bendable material being of sufficient thickness to provide spacers, a second sheet of bendable material of sufficient width to project beyond the inner edges of the inner sheet of bendable material to provide flanges spaced from the web a distance equal to the thickness of the inner sheet of bendable material, a supporting rod extending substantially the entire length of the web, said second sheet of bendable material enclosing said first-mentioned sheet of bendable material and enclosing said supporting rod between it and said first mentioned sheet of bendable material.

In testimony whereof I affix my signature.

FRANK D. POWELL.