July 8, 1941. H. C. STOLL 2,248,726

ADDRESS PLATE

Filed April 16, 1940

Fig. 1

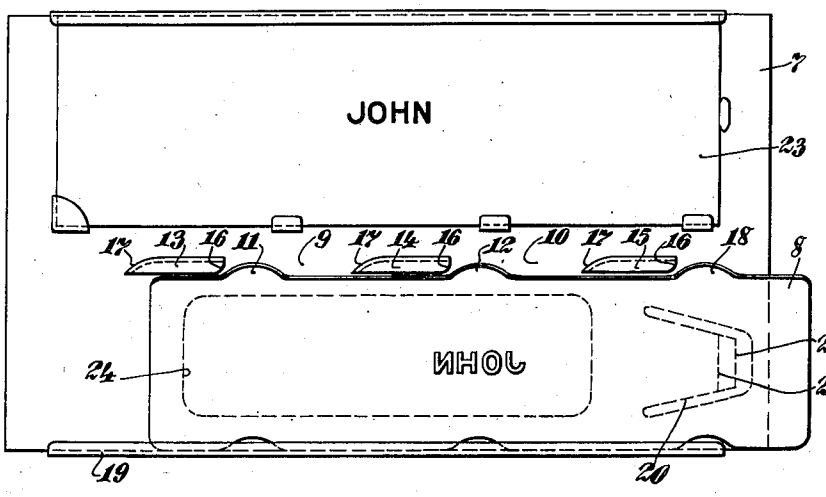


Fig. 2

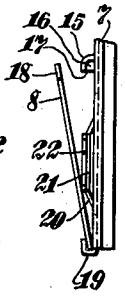


Fig. 3

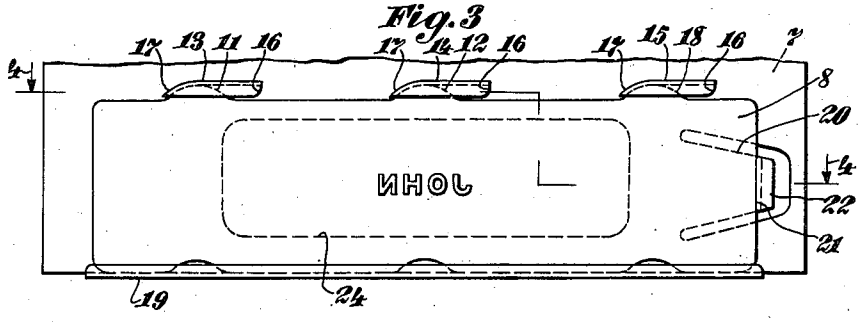


Fig. 4

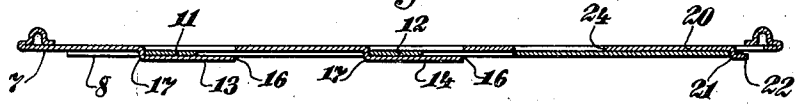
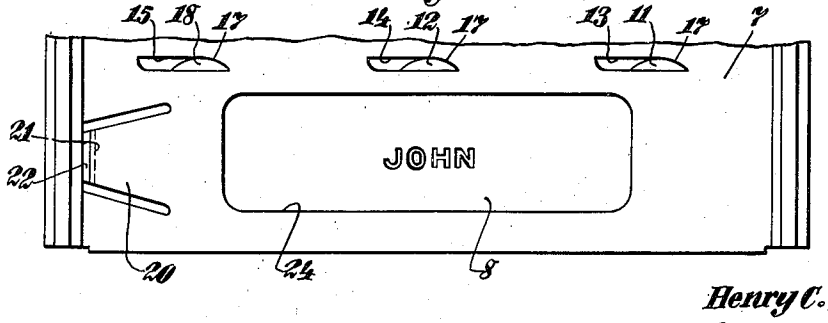


Fig. 5



INVENTOR.
Henry C. Stoll,

BY

Philip S. McLean.
ATTORNEY.

Patented July 8, 1941 2,248,726

UNITED STATES PATENT OFFICE

2,248,726

ADDRESS PLATE

Henry C. Stoll, Bronx, N. Y.

Application April 16, 1940, Serial No. 329,947

5 Claims. (Cl. 101—369)

The invention herein disclosed relates to what are generally known as address plates, made up of embossed printing plates removably mounted on supporting frames.

Special objects of the invention are to facilitate the mounting of the printing plates on the frames; to enable quick engagement of a plate on a frame by simply placing it over the frame and interlocking it with a short sliding movement, instead of the full length sliding movement heretofore required; to provide accurate positioning and securing of the plate, with simple sturdy parts, easily and inexpensively produced and not liable to be broken, bent or rendered inoperative; to enable ready identification of the plates when mounted on the frames without reference to the index cards usually carried by such frames and in general, to simplify and improve on the construction of such frames and plates.

The novel features of the invention by which the foregoing and other desirable objects are attained are set forth in the following specification, illustrated in the accompanying drawing and broadly covered in the claims.

The drawing illustrates one practical commercial embodiment of the invention. Structure however may be modified and changed as regards this particular illustration, all within the true intent and broad scope of the invention as hereinafter defined and claimed.

Fig. 1 is a face view of a frame, with a printing plate rested in the lower channel in position with projections on the upper edge in line with interruptions in the upper channel and so ready to be fully engaged by simply rocking it back and sliding it the short distance necessary to carry the projections beneath the separate portions of the upper channel.

Fig. 2 is an end elevation showing how in such relation the plate is in position to force back the spring tongue which locks the plate in its fully seated condition.

Fig. 3 is a broken face view illustrating the plate secured in fully seated position.

Fig. 4 is a longitudinal sectional view of the parts as on substantially the line 4—4 of Fig. 3.

Fig. 5 is a broken rear view showing how the back of the plate is exposed through the frame to enable direct reading of the lettering without need for reference to an index card.

As shown in the several views, the frame or support 7, is provided with a guideway to slidingly receive the printing plate 8, and the channel for holding the plate at the top is interrupted as indicated at 9, 10, in accordance with spacing of the projections 11, 12, on the upper edge of the plate. The separated sections 13, 14, 15, of this interrupted guide channel are open each at one end at 16, to admit such projections and closed at the opposite ends at 17, to serve as stops for such projections, thus to limit sliding movement of the plate and to definitely position the plate longitudinally on the frame.

The closed ends 17, of the upper channel sections are shown as curved or inclined substantially in accordance with the curvature or inclination of the projections 11, 12, and 18, on the plate, thus to have the effect of wedging the plate downward into fully seated position in the lower channel 19, when the plate is slipped into fully engaged position beneath the upper channel portions or confining flanges.

The width of the plate between the projections 11, 12, 18, is shown as slightly less than the distance between the bottom of the lower channel 19, and the lower edges of the upper channel forming elements so that when the plate is rested in the lower channel, it can be rocked back against the face of the frame if the two inner projections 11, 12, are in register with the interruptions or spaces 9, 10, in the upper channel.

As a consequence, such a plate can be assembled on a frame of this character by simply placing the plate over the frame with its lower edge in the lower channel in position with the projections 11, 12, in line with the open spaces in the upper channel, as in Figs. 1 and 2, and then sliding the plate the slight distance necessary to carry the projections 11, 12, 18, beneath the channel sections 13, 14, 15, provided to receive the same. The stops 17, then engaged by the inner edges of projections 11, 12, 18, limit the longitudinal sliding movement of the plate and accurately position the plate on the frame.

To releasably secure the plate thus located and held on the frame, spring tongue 20, is employed having the projecting shoulder 21, to snap forwardly in back of the end edge of the plate, said abutment having a lip 22, by which it may be depressed to release the plate.

As shown particularly in Fig. 2, when the plate is positioned in the lower channel, preparatory to slipping it beneath the holding portions of the upper channel, it overlies the projecting abutment and releasing portion of the spring tongue and hence as its upper portion is tipped back into the plane of the frame, it can be utilized as a lever to force back the spring tongue. The locking tongue is thus thrust back out of the way in the simple act of locating the plate

on the frame, preparatory to the slight sliding movement necessary to engage the projections beneath the upper clips. Consequently, the locking tongue is covered by the plate and in such a way that it can not interfere with the placing and interlocking engagement of the plate on the frame.

The location, engagement and securing of the plate on the frame may thus be effected simply and quickly and all practically as a part of the one act. Release and removal is accomplished just as easily by simply depressing the spring catch and sliding the plate just far enough to carry the plate projections from beneath the holding clips. As soon as this occurs, the spring tongue reacts to rock the plate forwardly thus actually to aid in the removing of the plate from the frame.

The embossment of the printing characters and the plate in reverse order makes it so difficult to read such characters that the usual practice is to provide an index card **23**, carrying a print of such subject matter on the frame above the plate.

A special feature of the present invention is the avoidance of the necessity for such index card and the enabling of the reading of the printing characters direct in the usual order by provision of a window or opening **24**, in the guideway portion of the frame in back of the printing area of the plate. This construction as shown in Fig. 5, makes it possible to quickly and easily read the type matter by simply looking at the back of the frame. This window also is a desirable feature in reducing the weight of the frame.

While the number of sections composing the upper interrupted channel may vary, it is found that three such sections and three correspondingly spaced projections on the edge of the plate are ordinarily desirable. The coacting inclined stop shoulders at the inner ends of the channel sections and on the plate projections serve by their wedging action to thrust the plate solidly down in the lowering guide channel. However, only one set of such stop shoulders may be used, or if desired, a separate stop shoulder may be provided on the frame for engagement by the inner end of the plate. By locating the forwardly projecting spring tongue or catch to cooperate with the outer end of the plate, said catch will then be disposed entirely in back of the plate when the latter is dropped into the lower channel with the projections in registration with the spaces of the upper channel, applying a certain frictional tension on the back of the plate, which is of aid in temporarily retaining the plate on the frame and under reverse conditions, when the catch is released and the plate slipped over sufficiently to clear the projections from the channel sections, this catch then exerts spring force to tilt the plate forwardly and, to such extent, partly expelling the plate from its holder or support. Actually each one of the separated channel sections constitutes a separate short channel confining the particular portion of the plate carrying the projection which engages in that channel section. These short channels thus confine different portions in the length of the plate, preventing or overcoming bending or twisting of the plate. The window opening in the frame provides a means by which the printing plate may be directly read at the back of the frame for comparison with the index card on the front of the same, thus enabling checking without removing the plate from the frame as has heretofore been the practice. This direct reading feature of the printing plate renders the index card actually unnecessary since the window, which may be in a single opening or in several smaller, appropriately placed openings can provide all necessary identification for practical purposes.

What is claimed is:

1. In apparatus of the character disclosed, the combination of a frame having channels spaced in opposed relation to form a guideway, one of said channels being of sectional structure with the sections composing the same separated to leave spaces therebetween and a printing plate having a body width to pass at one edge into the interrupted channel when the opposite edge of the plate is placed in the other channel and said plate having projections at said first mentioned edge to register with and enter the spaces between the separated channel sections and of sufficient extent to engage within said channel sections upon longitudinal shifting movement of the plate after registration of said projections with said spaces as described, said channel sections having closed inner ends engageable by said projections to serve as positioning stops for the plate.

2. In apparatus of the character disclosed, the combination of a frame having channels spaced in opposed relation to form a guideway, one of said channels being of sectional structure with the sections composing the same separated to leave spaces therebetween and a printing plate having a body width to pass at one edge into the interrupted channel when the opposite edge of the plate is placed in the other channel and said plate having projections at said first mentioned edge to register with and enter the spaces between the separated channel sections and of sufficient extent to engage within said channel sections upon longitudinal shifting movement of the plate after registration of said projections with said spaces as described and a forwardly projecting spring catch on the frame for holding engagement with the plate when the latter is fully seated in the guideway, said spring catch being positioned to stand in back of said plate in said preliminary registering of said plate on the frame and whereby said plate is operable to depress said spring catch in the act of positioning and engaging the plate on the frame and whereby said spring catch is operative to tilt the plate forwardly when the projections thereon are released from the channel sections in which they were engaged.

3. In apparatus of the character disclosed, the combination of a frame having a continuous lower channel and a sectional upper channel, the sections of the latter being separated to provide spaces therebetween and a printing plate having projections on the upper edge of the same spaced to register with said spaces between the upper channel sections and of an extent to enter into said channel sections when the lower edge of the plate is entered in the lower channel, stop means for limiting the extent of sliding movement of the plate on the frame, a forwardly projecting spring catch on the frame for holding engagement with the plate when the latter is so positioned by said stop means, said forwardly projecting spring catch being positioned to stand in back of the plate when the latter is in the position of registration of the

projections with the spaces between the channel sections to thereby operate against the back of the plate as a spring to assist in expelling the plate from the guideway when the projections are freed of engagement with the channel sections.

4. In apparatus of the character disclosed, the combination of a frame having a continuous lower channel and a sectional upper channel, the sections of the latter being separated to provide spaces therebetween and a printing plate having projections on the upper edge of the same spaced to register with said spaces between the upper channel sections and of an extent to enter into said channel sections when the lower edge of the plate is entered in the lower channel, said projections having rounded entering edges and said channel sections having substantially corresponding shaped inner terminal ends for stop engagement therewith.

5. In apparatus of the character disclosed, the combination of a support having opposed channels forming a guideway, one of said channels being of short length as compared with the opposite channel, a printing plate engageable at one edge in said longer channel and having a projection at the opposite edge to engage within said shorter channel, cooperating stop shoulders on said shorter length channel and plate projection and a releasable spring catch for retaining the plate in position with said stop shoulders so engaged, said spring catch projecting forwardly on the frame in position engaging the back of the printing plate resting in the longer channel and rocking the same forwardly when the projection on said plate is freed of the shorter channel.

HENRY C. STOLL.