

March 23, 1965

H. W. CRAMER

3,174,239

INDICIA-BEARING STRUCTURE

Filed March 12, 1962

2 Sheets-Sheet 1

Fig. 1.

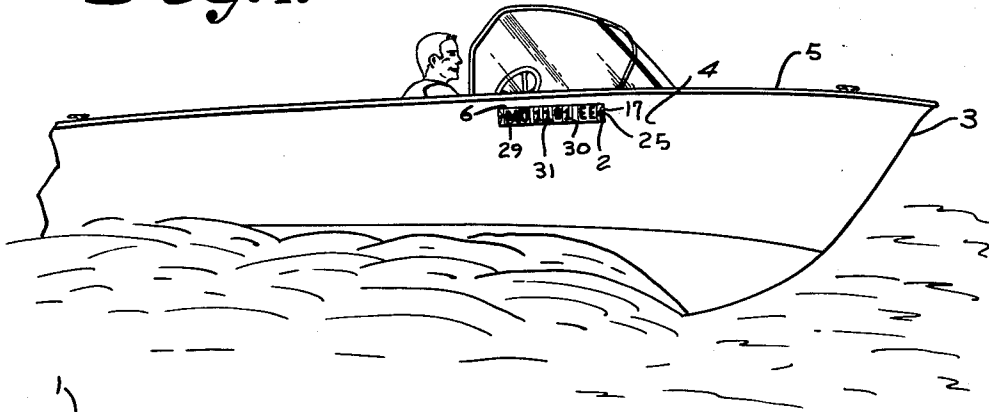


Fig. 2.

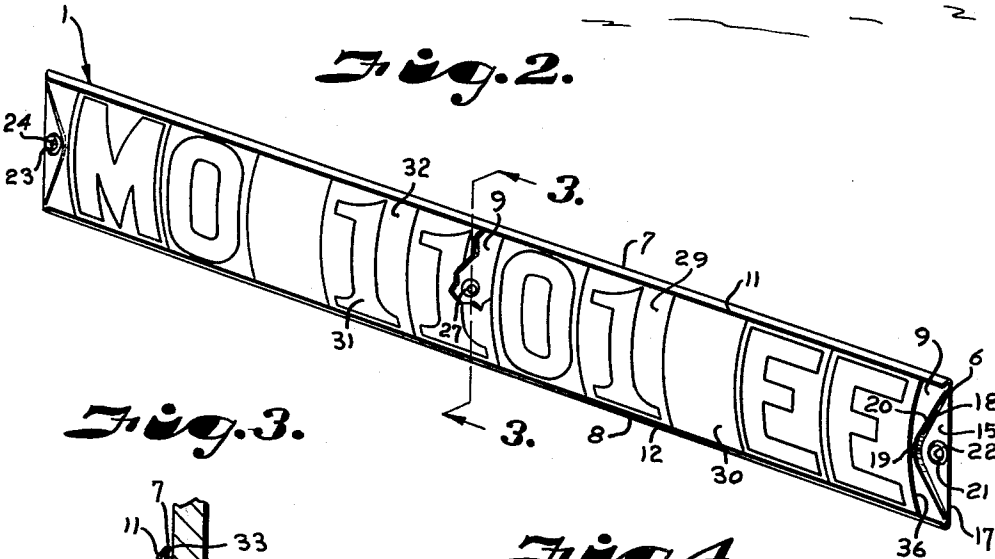


Fig. 3.

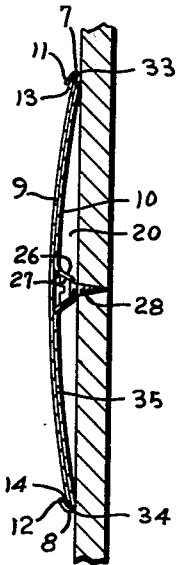


Fig. 4.

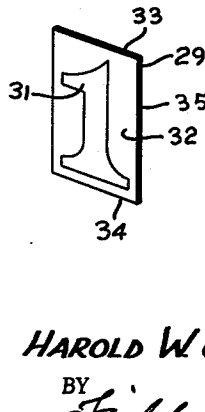
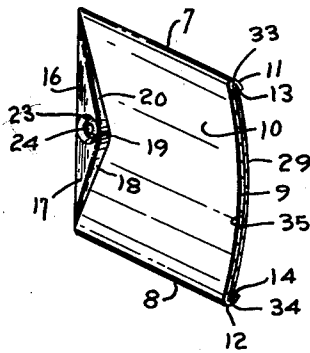


Fig. 5.



INVENTOR.
HAROLD W. CRAMER

BY
Fishburn & Gold
ATTORNEYS

March 23, 1965

H. W. CRAMER

3,174,239

INDICIA-BEARING STRUCTURE

Filed March 12, 1962

2 Sheets-Sheet 2

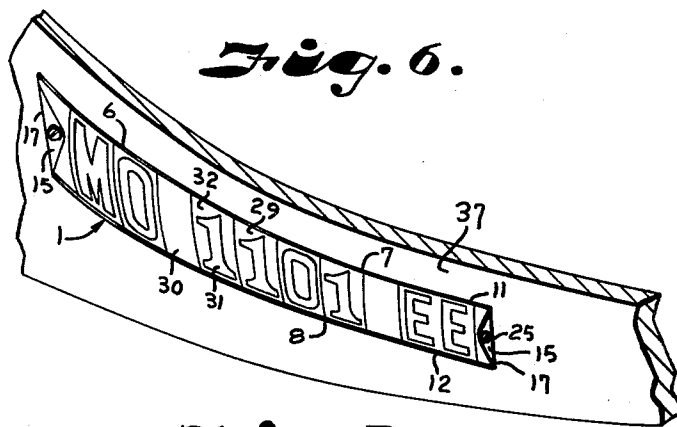


Fig. 6.

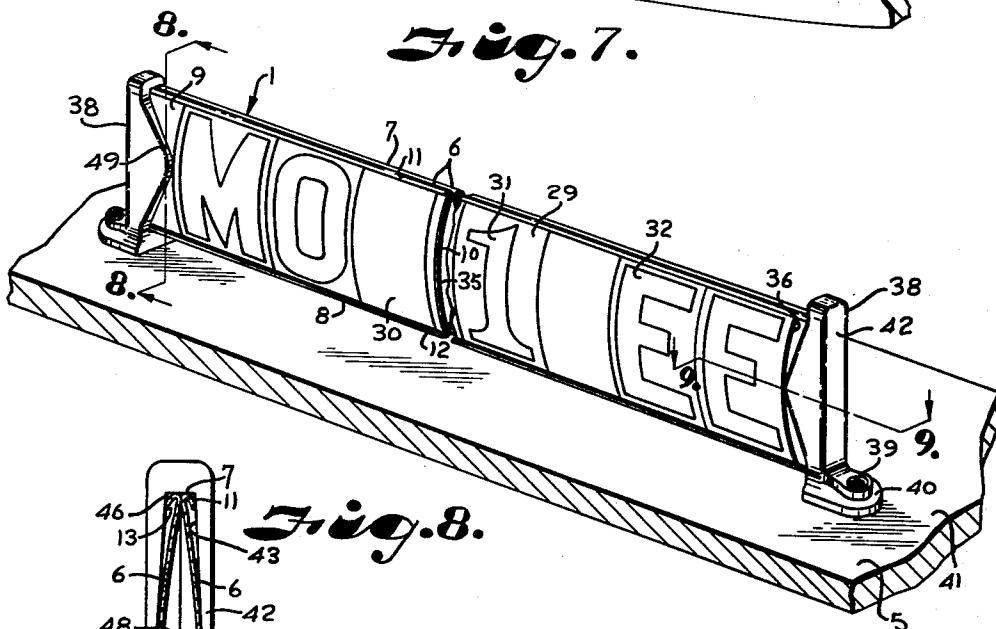


Fig. 7.

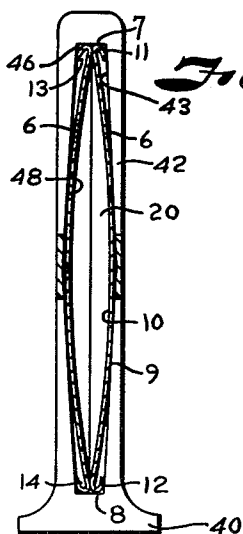


Fig. 8.

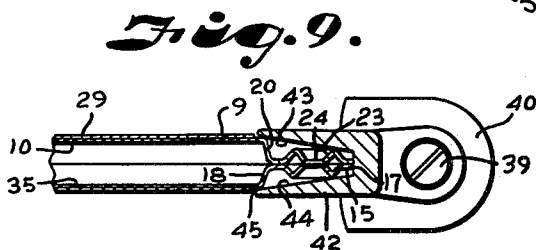


Fig. 9.

INVENTOR.
HAROLD W. CRAMER

BY
Fishburn & Bold
ATTORNEYS

1

2

3,174,239

INDICIA-BEARING STRUCTURE

Harold W. Cramer, 8421 Oldham Road, Kansas City, Mo.

Filed Mar. 12, 1962, Ser. No. 179,077

6 Claims. (Cl. 40-16)

This invention relates to indicia-bearing structure, such as signs, identification markers and the like, and more particularly to such a structure adapted to be mounted on boats and the like for exhibiting registration numbers or other suitable indicia.

Governmental regulations require boats of certain types and classes to carry registration indicia and other suitable marking in certain areas wherein the indicia is readily visible from a distance. The signs or indicia structures heretofore used have been of short life due to damage from impacts, force from waves, corrosion or deterioration from atmospheric conditions, particularly in salt water areas, and also present difficulties in mounting particularly when the mounting surfaces have compound curves. Such deterioration or damage also presents problems because if the indicia becomes inaccurate or defaced, penalties may be imposed upon the owner.

The principal objects of the present invention are to provide an indicia-bearing structure that substantially eliminates the difficulties that have been encountered in structures heretofore used as above-noted; to provide an indicia-bearing structure wherein the indicia are carried on a body member that has substantial longitudinal stiffness and torsional flexibility to conform to compound curved mounting surfaces; to provide such a structure wherein a body member is formed from a single sheet of metal treated to be substantially non-corrosive with edge portions turned to provide ways for slidably receiving individual indicia-bearing members or panels which are held in resilient engagement with the face of the body member to resist movement thereof; to provide such a structure wherein end portions are recessed from the indicia-bearing face and are substantially in a plane defined by the longitudinal edges of the member for facilitating mounting and providing transverse stiffness at end portions; to provide such a structure with mounting portions for three-point mounting to facilitate conformation to a compound curved mounting surface; to provide an indicia-bearing structure with indicia on opposed faces that are convex with longitudinal rigidity with end portions engaged in sockets of brackets mounted in fixed spaced relation whereby the rigidity of the indicia-bearing portions retains same engaged in the bracket sockets; to provide such an opposed indicia-bearing structure that has a pair of body members in back-to-back relation and that is mounted with a minimum of fastening devices; and to provide an indicia-bearing structure that is economical to manufacture, easily provided with desired indicia, that is simple to mount on suitable surfaces and that is durable and capable of long life under adverse conditions.

Other objects and advantages of this invention will become apparent from the following description taken in connection with the accompanying drawings wherein are set forth by way of illustration and example certain embodiments of this invention.

FIG. 1 is a partial perspective view of a boat having indicia-bearing structure thereon embodying the features of the present invention mounted thereon.

FIG. 2 is a perspective view of an indicia-bearing structure with portions broken away to show a fastener-receiving portion.

FIG. 3 is a transverse sectional view through the indicia-bearing structure mounted on a surface taken on the line 3-3, FIG. 2.

FIG. 4 is a perspective view of an individual indicia panel.

FIG. 5 is a partial perspective view of an end portion of the body member from the rear thereof.

FIG. 6 is a perspective view of the indicia-bearing structure mounted on a compound curved surface.

FIG. 7 is a perspective view of an indicia-bearing structure having indicia on opposed faces, the indicia-carrying body members being supported in spaced brackets.

FIG. 8 is a transverse sectional view through the structure shown in FIG. 7, taken on the line 8-8, FIG. 7.

FIG. 9 is a partial longitudinal sectional view taken on the line 9-9, FIG. 7.

Referring more in detail to the drawings:

The reference numeral 1 generally designates an indicia-bearing structure, particularly adapted to serve as an identification device as at 2 on boats 3 having compound curved surfaces 4 at forward portions of the side on which said identification may be located, said boat also having a forward deck 5. The indicia-bearing structure includes a body member or strip 6 preferably formed from a single sheet of sheet metal treated or otherwise resistant to corrosion or deterioration from atmospheric conditions, a suitable material being anodized aluminum sheet, stainless steel and the like. The body member is preferably elongate and is curved transversely between side edges 7 and 8 which extend longitudinally thereof, said transverse curvature providing a convex front face 9 and a concave rear face 10 with the side edges 7 and 8 normally lying in a single plane. Integral side flanges 11 and 12 are preferably arranged at the side edges and substantially coextensive with the length of the body member, said side flanges being turned forwardly in overlying spaced relation to the front face 9 to form opposed ways 13 and 14 adjacent the sides 7 and 8 respectively. End portions 15 of the body are preferably substantially flat with the rear face 16 substantially in the same plane as the longitudinal side edge portions 7 and 8 of the rear face 10. The end portions 15 are defined by end edges 17 of the body member and by edges 18 which converge inwardly from adjacent the outer extremities of said end edges 17 and merge in an arcuate portion 19. The transverse curved portion of the body is connected to the edges 18 by shoulders 20 which provide rigidity at the end portions of the body. The body member is provided with a plurality of fastening-receiving portions 21 and, in the illustrated structure, each of the end portions is provided with an upstanding boss 22 with the center portion turned inwardly to provide a substantially frusto-conical or tapered portion 23 that defines an opening 24 for receiving a fastening device such as a screw or the like 25 for mounting the end portions of the body member on a surface. The body member is also provided with a centrally located inwardly tapering portion 26 defining an opening 27 preferably substantially midway between the end portions for a fastening device such as a screw 28 to aid in securing the body to a surface on which it is to be mounted.

A plurality of indicia-carrying panels 29 are arranged to be inserted in the ways of the body member in overlying relation to the front face 9. The panels 29 and also spacer panels 30 are preferably formed of substantially noncorrosive sheet metal such as anodized aluminum, stainless steel and the like with the indicia-bearing panels having indicia 31 on the front face 32 thereof preferably provided by a suitable coating to resist atmospheric elements, as for example a baked enamel. The indicia-carrying panels and the spacer panels are each substantially rectangular with opposed edges 33 and 34 with a dimension therebetween substantially the same as the dimension between the bottoms of the ways 13 and 14.

The panels having the desired indicia are selected, together with suitable spacer panels, and each of said panels are preferably resilient whereby they may be bent forwardly and the edges 33 and 34 positioned in the ways 13 and 14 and moved in overlying relation to the face 9. The panels are then released whereby the resilient action will effect engagement of the edges 33 and 34 in the respective ways and the rear face 35 of the panel will engage the forward face 9 of the body to provide a frictional engagement, as well as a resilient engagement, of the edges 33 and 34 with the ways of the body to retain the indicia panels and spacer panels in place. The panels are arranged whereby the desired identification is presented with suitable spacers for portions of the identification, it being preferred that the indicia panels or spacer panels be arranged whereby the outermost panels have edges 36 adjacent the curved edge 19 of the flat ends of the body member and the area therebetween be substantially filled by the panels being in edge-abutting relation, as illustrated in FIG. 2.

In mounting the structure on a supporting surface, the indicia and/or spacer panels are moved to expose the center opening 27 and, then, with the body member in desired position, the fastening devices such as screws 25 and 28 are applied to the respective fastening-receiving openings 24 and 27 and secured to the support, as for example on a side surface of a boat, as illustrated in FIG. 1. After the fastening devices have been inserted and secured to the support, the indicia and/or spacer panels 29 and 30 are moved to provide a substantial covering relation to the entire portion of the body member between the end portions 15 thereof, also, being in covering relation to the center fastening device. The body member, due to the curvature of the elongate portion thereof and the flanges forming the ways, has substantial rigidity longitudinally thereof. The end portions 15, together with the shoulders 20, provide transverse rigidity at the ends, and it is found that the three-point mounting, together with this rigidity, maintains the side edges and end portions of the body in engagement with a supporting surface to withstand force from waves, water or other stress that might tend to damage the structure. It has also been found that this arrangement is particularly advantageous in mounting the body member on the compound curved surface as it has substantial rigidity longitudinally and at the end portions and it also has torsional flexibility so it can be applied to such a compound surface as at 37, FIG. 5, and the side edges and end portions will engage such surface in such a manner that entry of water pressure, such as by waves between the body member and the surface 37, is substantially eliminated. The resiliency of the panels 29 and 30, together with the convex surface of the forward face 9 of the body member, provides an engagement and friction that retains the indicia panels 29 and spacer panels 30 in place under all conditions except the manually removing of the panels from the ways of the body member.

If the forward side surfaces of a boat or the like are not sufficiently vertical to provide a proper view of the identification device or, if for other reasons it is desirable that the indicia be placed on the deck 5 of a boat or other substantially horizontal surface in upstanding relation thereto, there should be an arrangement of the indicia whereby it is visible from opposed sides. In the mounting of the indicia on a deck or other surface whereby the device is substantially upstanding therefrom, as illustrated in FIG. 7, a pair of body members 6 are provided with the indicia and spacer panels 29 and 30, and then arranged in back-to-back relation whereby the side edges 7 and 8 are engaged. Then, with the ends retained together, the body members provide substantial rigidity, both longitudinally and transversely. The end portions are then supported in spaced brackets 38 which are

secured in fixed spaced relation to the deck 5 by suitable fastening devices 39.

In the illustrated structure, each of the brackets 38 have base portions 40 adapted to rest on an upper surface 41 of a deck or the like. The brackets each include an upstanding portion 42 having a socket 43 adapted to receive the end portions of the back-to-back body members 6. The sockets 43 have a height substantially corresponding to the height of the body member and have side surfaces 44 converging inwardly from the opening 45 of the socket whereby outer portions of the socket engage opposite sides of the convex faces 9 adjacent the shoulder 20, as illustrated in FIG. 9. The width of the socket at the upper and lower extremities as at 46 is such that the inner faces of the socket are engaged by the flanges 11 and 12 and the side walls 48 defining the socket have edges 49 similar in contour to the shoulder 20 of the body members whereby said side walls slightly overlay the convex curvature of the adjacent portions of the body members. In the structure illustrated, the sockets 43 of the brackets 38 are arranged in facing relation and the end portions of the back-to-back sign body members with indicia thereon are sleeved into the sockets forming a snug engagement. In the structure illustrated, the base members of the brackets extend outwardly from the upright portion substantially longitudinally of the device and the fastening devices 39 are inserted and secured to the mounting surface as of the deck of a boat whereby the structure is mounted with a minimum of fastening devices and the brackets cooperate with the rigidity of the body members to maintain the structure in assembled mounted position. The wedging action of the sockets on the end portions of the body members holds the rear faces 16 of the end portions and the side edges 7 and 8 respectively in engagement for cooperative support and to eliminate removal of a body member without removal of a bracket 38 from the supporting surface. This provides a substantially permanent mounting of an identification device with indicia on both sides or opposed faces wherein the structure is resistant to damage or deterioration from the elements including atmospheric conditions.

It is to be understood that while I have illustrated and described one form of my invention, it is not to be limited to the specific form or arrangement of parts herein described and shown except insofar as such limitations are included in the claims.

What I claim and desire to secure by Letters Patent is:

1. An indicia holder comprising,
 - (a) an elongate body member having a front face and side edges,
 - (b) side flanges substantially coextensive with the side edges and extending forwardly in overlying spaced relation to side portions of said front face to form opposed ways,
 - (c) said body member being curved transversely and having a convex front face and a concave rear face,
 - (d) and fastening receiving portions of said body member extending transversely at ends thereof and having rear face portions normally substantially in a plane defined by the side edges of said body member,
 - (e) said opposed ways of the body member being adapted to slidably receive side edges of indicia carrying panels with said panels substantially contacting the convex front face of the body member.
2. An indicia holder for boats and the like comprising,
 - (a) an elongate body member formed of sheet metal and having a front face and side edges,
 - (b) integral side flanges substantially coextensive with the side edges and turned forwardly in overlying spaced relation to side portions of said front face to form opposed ways,
 - (c) said body member being curved transversely and

5

6

- having a convex front face and concave rear face,
- (d) and fastening receiving portions deformed rearwardly in said body member at ends thereof and having transversely extending rear face portions normally substantially in a plane defined by the side edges of said body member, 5
- (e) said opposed ways of the body member being adapted to slidably receive side edges of indicia-carrying panels with said panels substantially contacting the convex front face of the body member, 10
- (f) said body member having torsional flexibility whereby the side edges and ends conform to curved mounting surfaces.
- 3. An indicia holder as set forth in claim 2 including, 15
- (a) brackets adapted to be mounted in fixed spaced relation and having sockets receiving the fastening receiving portions at the ends of the body member whereby the rigidity of the body member retains same engaged in the bracket sockets.
- 4. An indicia holder as set forth in claim 3 wherein, 20
- (a) said sockets of the brackets are defined by inwardly converging surfaces to receive the fastening receiving portions at the ends of the body member with a wedging action to retain the side edges and fastening receiving portions of the body member firmly engaged therein. 25
- 5. An indicia-holder for boats and the like comprising, 30
- (a) an elongate body member formed of sheet metal and having a front face and side edges,
- (b) integral side flanges substantially coextensive with the side edges and turned forwardly in overlying spaced relation to said front face to form opposed ways, 30
- (c) said body member being curved transversely and having a convex front face and a concave rear face, 35
- (d) said body member having end edges and generally triangular portions deformed rearwardly at the body member ends with one side of said triangular portions being the respective end edge and the other sides of said triangular portions converging inwardly from adjacent the intersection of the side and end edges of the body member, 40
- (e) said opposed ways of the body member being adapted to slidably receive indicia-carrying panels with said panels substantially contacting the convex front face of the body member, 45

- (f) said triangular portions having fastening device receiving portions therein.
- 6. An indicia-holder for boats and the like comprising, 40
- (a) an elongate body member formed of sheet metal and having a front face and side edges,
- (b) integral side flanges substantially coextensive with the side edges and turned forwardly in overlying spaced relation to said front face to form opposed ways,
- (c) said body member being curved transversely and having a convex front face and a concave rear face,
- (d) said body member having end edges and generally triangular portions deformed rearwardly at the body member ends with one side of said triangular portions being the respective end edge and the other sides of the triangular portions converging inwardly from adjacent the intersection of the side and end edges of the body member,
- (e) said opposed ways of the body member being adapted to slidably receive side edges of indicia-carrying panels with said panels substantially contacting the convex front face of the body member,
- (f) said body member having fastening device receiving apertures in the generally triangular end portions and at a point substantially equally spaced from the ends for three-point mounting, said body member having substantial longitudinal stiffness and torsional flexibility to conform to compound curved mounting surfaces.

References Cited by the Examiner

UNITED STATES PATENTS

| | | | |
|-----------|-------|-----------|--------|
| 1,900,769 | 3/33 | Schemmel. | |
| 2,176,713 | 10/39 | Hendrix | 40-16 |
| 2,499,049 | 2/50 | Yates. | |
| 2,514,046 | 7/50 | Gerbes | 40-16 |
| 2,626,472 | 1/53 | Stingl | 40-16 |
| 2,867,926 | 1/59 | Cuttler | 40-140 |

FOREIGN PATENTS

| | | |
|---------|------|----------------|
| 481,744 | 3/38 | Great Britain. |
|---------|------|----------------|

JEROME SCHNALL, Primary Examiner.

E. V. BENHAM, Examiner.