

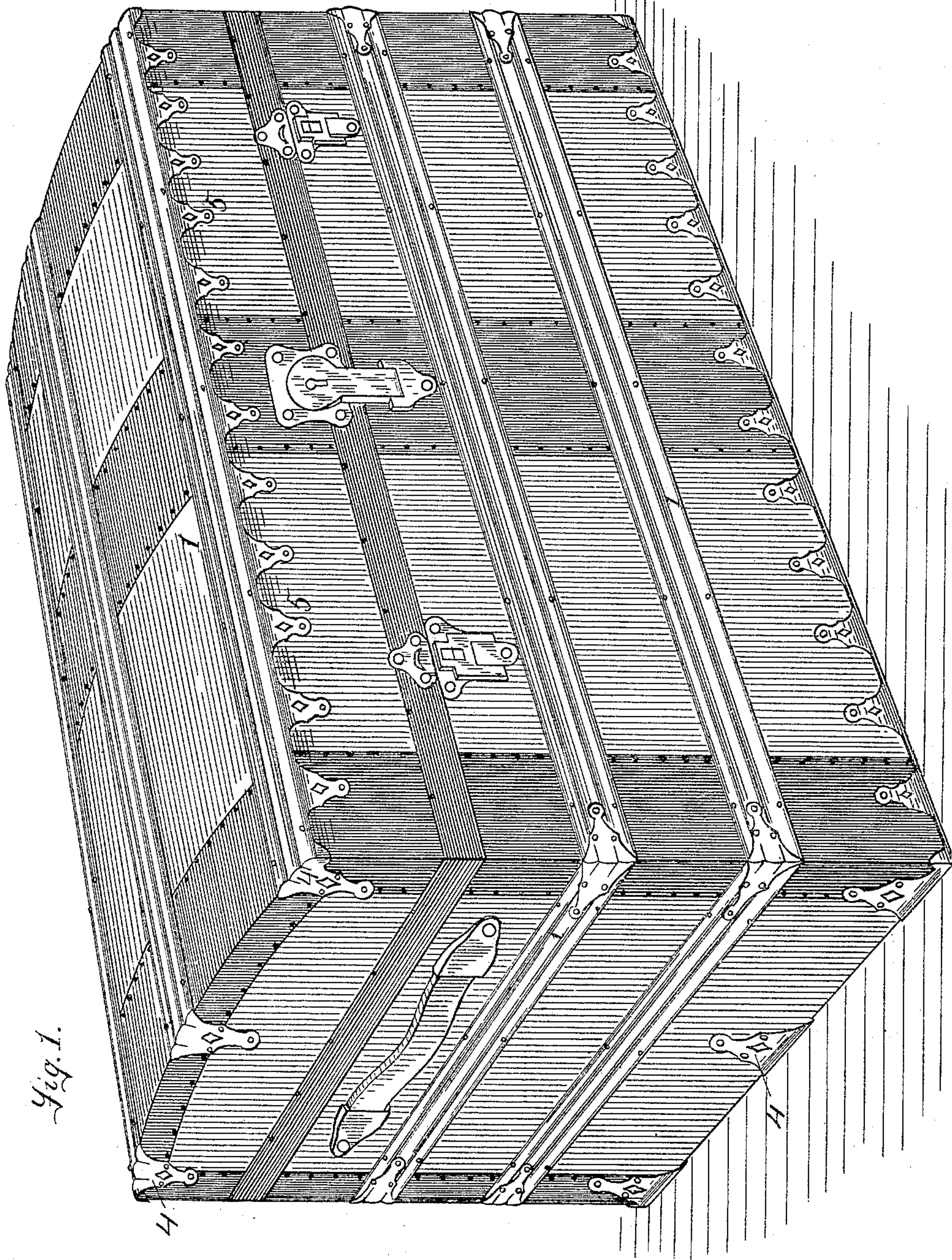
(No Model.)

2 Sheets—Sheet 1.

R. TOPHAM.
TRUNK SLAT.

No. 444,736.

Patented Jan. 13, 1891.



WITNESSES:

Walter H. Loomis
John E. Merrill

INVENTOR:
Richard Topham

BY

W. H. Loomis

ATTORNEY.

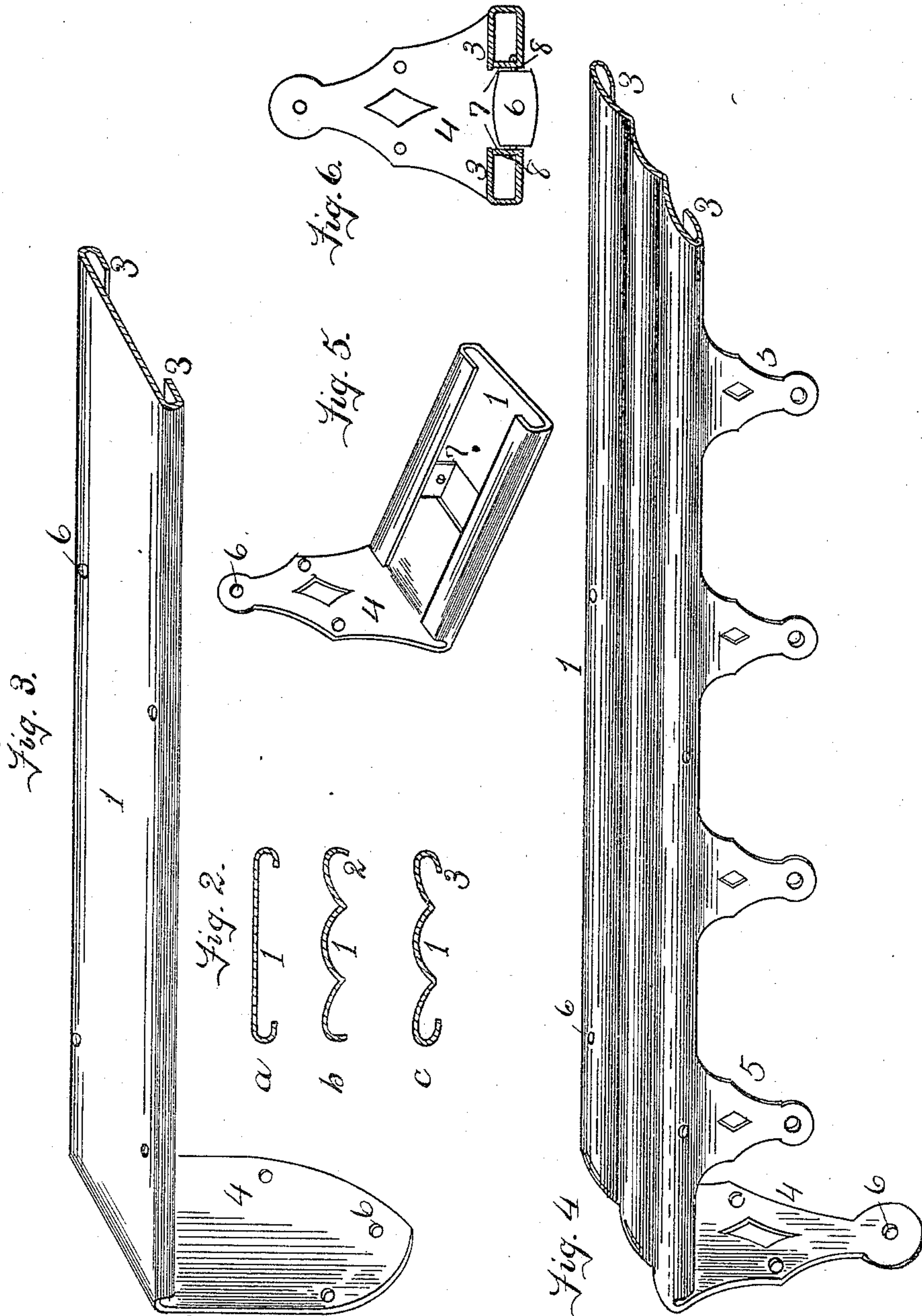
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UNITED STATES PATENT OFFICE.

RICHARD TOPHAM, OF CHICAGO, ILLINOIS.

TRUNK-SLAT.

SPECIFICATION forming part of Letters Patent No. 444,736, dated January 13, 1891.

Application filed February 25, 1890. Serial No. 341,761. (No model.)

To all whom it may concern:

Be it known that I, RICHARD TOPHAM, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Trunk-Slats; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
10 pertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to an improved form
15 of slat for use in the manufacture of trunks; and it consists, primarily, in forming the slat of a strip of metal longitudinally corrugated, having its side edges turned down or under in such a manner that the edges or the faces
20 of the parts thus turned down form an inner face for the slat.

It also consists in forming as an integral part of such slat end or side extensions, or both, adapted to be bent down to form end or
25 side clamps for the purpose of securing the slat in place and protecting the edges of the trunk, the side clamps also taking the place of the ornamental trimming commonly used.

A further feature of improvement consists
30 in attaching to a slat of the form described a suitable roller or caster mounted in bearings in ears struck up from the body of the slat.

The features of the side and end clamps and the rollers may be used with slats which
35 are not longitudinally corrugated. The side and end clamps, however, are particularly adapted to slats having their longitudinal edges turned under to form inner bearing-faces, and are only used by me in connection
40 with such slats.

The above-mentioned and minor points of improvement will be hereinafter more fully set forth.

The invention is illustrated in the accompanying drawings, in which—
45

Figure 1 is a perspective view of a trunk provided with slats of the construction herein set forth; Fig. 2, a detail showing a cross-sectional view of the several forms in which the
50 slat may be constructed; Fig. 3, a perspective view of a portion of a slat provided with end clamps; Fig. 4, a similar view of a corrugated

slat having end and side clamps formed in one piece therewith; Fig. 5, a view of a portion of the end of a slat, showing the manner
55 in which the roller-bearings are formed; and Fig 6, a cross-section of the same, showing the roller in position.

Like characters designate corresponding parts in each of the drawings. 60

The slat may be made in several forms, as shown in Fig. 2, the simplest form, as *a*, consisting of a strip of metal having its edges turned over so as to leave a little space between the fold and the body of the slat, the
65 turned-over edge forming an inner face or bearing-surface for the slat; or *b*, a strip of metal having longitudinal corrugations, the side edges of the same being bent down so as to lie in a plane substantially perpendicular
70 to the general plane of the slat or within said plane; or *c*, which is substantially a combination of the two forms *a* and *b*, consisting of a longitudinally-corrugated strip having its side edges folded under to form an inner face, the
75 essential feature common to all forms consisting in the formation of the edges of the body of the slat whereby they constitute a bearing-surface for the slat such that the strain shall be exerted upon the same in an
80 edgewise direction, insuring strength with little weight and giving a smooth rounded edge to the slat.

In the drawings, 1 designates the body of the slat having its side edges turned down, 85 as shown at 2, so as to lie either in or within a plane perpendicular to the general plane of the face, or, in other words, so that the turned-down edge forms a right angle or an angle less than a right angle with the plane of the
90 face. The object of the turned edge is to increase the strength of the slat and to give a smooth rounded edge, and in practice it is preferable that the edge should lie at an angle less than a right angle to the face, in order
95 that a weight or blow upon the face may have a tendency to turn the edge still farther in, thus insuring the covering of the raw edge of the metal, and this end may be more certainly gained by turning the edge under for
100 a short distance on each side, as shown at 3 in the drawings, so as to form an inner face substantially parallel to the outer face of the slat.

I only claim as my invention, as far as the slat itself is concerned, a corrugated metal slat having its longitudinal edges turned under to form a bearing-surface for the slat.

5 The slat with a plain uncorrugated body is shown and described only because the other features of the invention yet to be described are not limited in their use to corrugated slats. The corrugated slats possess peculiar

10 features of advantage and novelty. The edges of the longitudinal ridges or ribs formed by the corrugation on the under side of the slat constitute bearing portions which seat against the trunk. These slats take all the

15 shocks which are incident to the handling of the trunk, and hence it is desirable that they should be very strong. The corrugation of the slat adds to the strength of the slat and at the same time gives a number of bearing-

20 edges which seat on the trunk and brace the body of the slat and prevent it being crushed in and being broken. These advantages are not possessed by a slat having a plain body, and the plain-body slats are referred to only

25 because they may be used with the other features yet to be described.

The corrugated slats, as heretofore described, may be secured to the trunk in the ordinary manner by means of separate end

30 clamps, but for the purpose of increasing the strength and effecting a saving of time and labor in applying them the slat may be provided with end or side clamps 4 and 5, respectively, or both, formed in one piece there-

35 with. The several clamps may be stamped out on one side and the ends of a strip of metal and then bent down to the required angle, according to the form of the part of the trunk to which they are to be applied. The

40 opposite sides of the slat are turned down or under, as before described, and the pieces left between the adjacent side clamps are turned in the same manner. The slat is then in shape to be applied to the trunk, nail-holes

45 6 6 being formed in the several clamps and in the body of the slat for purposes of attachment.

It will be seen that by reason of the slat and clamps being formed in one piece not

50 only is there a great gain in the matter of strength, but a less number of nails is necessary, whereby time is saved in construction, and there is less injury to the body of the trunk by reason of the smaller number of nails

55 required. Moreover, the loosening of a nail does not materially detract from the strength of the fastening, as when clamps in separate pieces are used, and the whole being composed of one piece the danger of losing any part

60 is entirely obviated. By reason of the folded form of the edges of the slat the strength and stiffness of the body of the same are greatly increased, enabling a light material to be used.

In case of slats for use upon the sides, ends,

65 and top of the trunk between the edge slats, the side clamps are omitted, and for purposes of ornamentation as well as for increasing the

strength the face of the slat is preferably corrugated, as shown in Fig. 4. For use upon the bottom of the trunk the slats are usually

70 made plain in order to give a smoother surface.

The side and end clamps may be used with a slat having the body plain, but having its longitudinal edge turned under. In all cases

75 where the side clamps are used the portion of the edge of the slat between the side clamps is turned under. The end clamps, as indicated in the figures, are at their juncture with the body of the slat of less width than the slat

80 before its edges are turned under. This feature is attended with several advantages. The end clamps are not corrugated, nor are their edges turned under. In turning under the longitudinal edges of the slat the body of

85 the slat is reduced to the same width as that of the adjoining portions of the end clamps. Consequently the end clamps conceal and protect the raw ends of the turned-under

90 edges. This obviates the necessity of turning under the edges of the end clamps, which would necessitate carrying the turned-under edges over the edge of the trunk, which would

95 cause the metal to buckle more or less, and would not present as neat a finish.

For the bottom corner-slats I make use of the form shown in Figs. 5 and 6, and attach

near each end thereof a roller 6. The roller is mounted upon the slat as a permanent attachment thereto by means of ears 7 7, struck

100 inwardly from the face of the slat at any desired distance from the end thereof, and the roller 6 is journaled between the ears upon a shaft or rivet 8, set into the ears at such a

105 point that a portion of the roller extends below the face of the slat and the balance lies between the upper and lower face of the slat. The ears 7 7 serve the further purpose of acting as supports for the folded-over edges of the back of the slat, as shown in Figs. 5 and

110 6, to prevent the possible collapse of the same at the point required to support the greatest strain.

For the purpose of allowing sufficient room for the free working of the roller, the edges

115 of the slat are folded over with a less abrupt turn than in slats for other positions, ordinarily leaving about three-eighths of an inch between the inner and outer face of the slat.

These slats may be manufactured in regular

120 sizes, the distance between the opposite end clamps being varied according to the length of the truck upon which the slat is to be used, or if any irregular length or weight of material, according to the class of goods manufac-

125 tured, and it is evident that it may be made in a variety of forms without departing from the spirit of my invention. A slat for trunks is thus produced possessing the advantages of great strength, small expense, and ease of

130 attachment.

I claim as my invention—

1. A trunk-slat consisting of a strip of metal longitudinally corrugated, the lower edges of

the longitudinal ridges or ribs formed by the corrugations constituting bearing portions, which seat upon the trunk and support the body of the slat, and said corrugated slat having its longitudinal edges turned under to form a portion of the bearing-face of the slat, substantially as set forth.

2. A trunk-slat consisting of a strip of metal having its opposite edges turned under to form an inner bearing-face for the slat, and two end clamps or extensions of less width than the body of the slat before such edges are turned under, said clamps or extensions being formed integral with the body of the slat and bent downward from its two ends at an angle thereto, whereby said clamps or extensions protect and conceal the ends of the turned-under edges of the slat, substantially as set forth.

3. A metallic trunk-slat having side extensions or trimmings formed thereupon integral with the body of the slat and bent down from one of the longitudinal edges of the slat to form side clamps for purposes of attachment to a side of the trunk at an angle to that side of the trunk upon which the body of the slat is attached, the edge of the body of the slat between said extensions and the opposite edge of the body of the slat being turned under to form an inner bearing-face for the slat upon the same side as that from which the clamps extend, substantially as specified.

4. A metallic trunk-slat having end extensions or clamps and edge extensions or trimmings formed integral therewith and extending at an angle to the body thereof in a position to form clamps for the purposes of attachment to a side or end of a trunk at an angle to that side of the trunk upon which the body of the slat is secured, the longitudinal side edges of the body of the slat being turned under to form an inner bearing-face for the slat upon the same side of the slat as that from which said clamps extend, substantially as and for the purpose specified.

5. A trunk-slat consisting of a strip of metal having its opposite edges turned down to form an inner face for the slat, and opposite end

clamps formed integral with the body of the slat and bent down at an angle thereto, the body of the slat being longitudinally corrugated, substantially as and for the purpose herein set forth.

6. A trunk-slat consisting of a strip of metal having its opposite edges turned down to form an inner bearing-face at a short distance from the part forming the outer face, ears struck inwardly from said outer face, and a roller journaled between said ears and projecting outwardly through the space from which the metal forming the ears is struck, substantially as set forth.

7. A trunk-slat consisting of a strip of metal having its opposite edges turned down to form an inner face at a short distance from the part forming the outer face, end clamps formed integral with the body of the slat and bent down at an angle thereto, ears struck inwardly from said outer face near the ends thereof, and a roller journaled between said ears and projecting outwardly through the space from which the metal forming the ears is struck, substantially as and for the purpose herein specified.

8. A trunk-slat consisting of a strip of metal having its opposite edges folded over to form an inner face at a short distance from the inner side of the part forming the outer face, end clamps formed integral with said outer face and bent inwardly at an angle thereto, ears struck inwardly from said outer face, near the opposite ends thereof, of a height equal to the distance between said inner and outer faces and in position to form a strut or support between said inner and outer faces, and a roller journaled between said ears and extending through the aperture formed by the striking out of the said ears, substantially as and for the purpose herein set forth.

In testimony whereof I affix my signature in presence of two witnesses.

RICHARD TOPHAM.

Witnesses:

WALTER HOLCOMB,
F. W. LANE.