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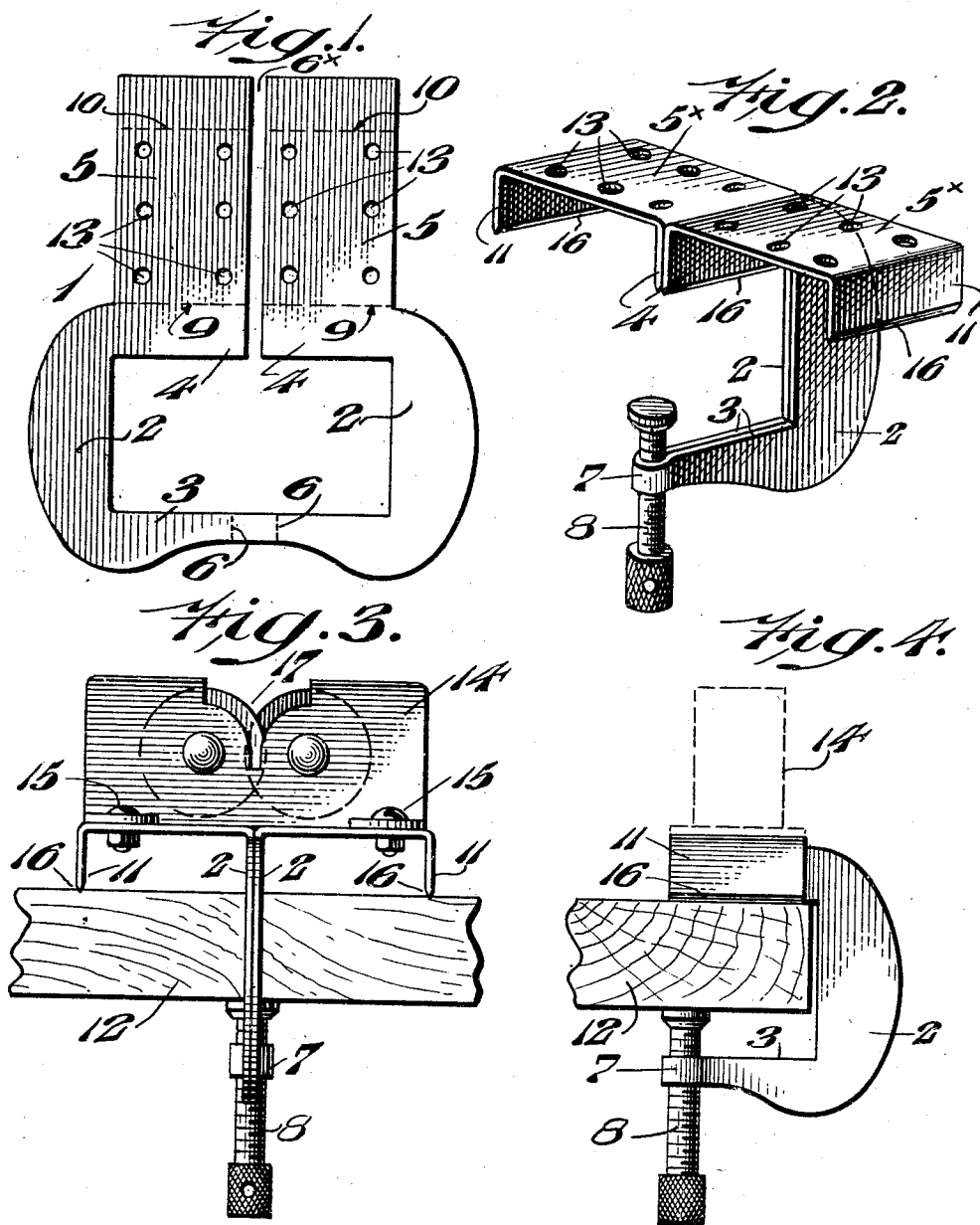
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1,747,005

METHOD OF MAKING CLAMPS AND THE BLANKS FOR THE SAME

Filed Oct. 4, 1923

2 Sheets-Sheet 1



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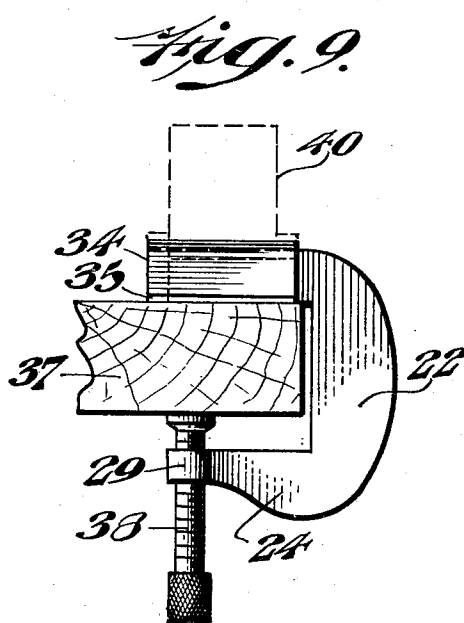
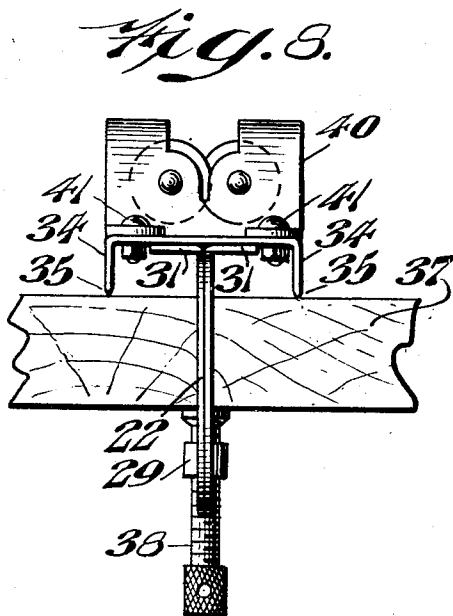
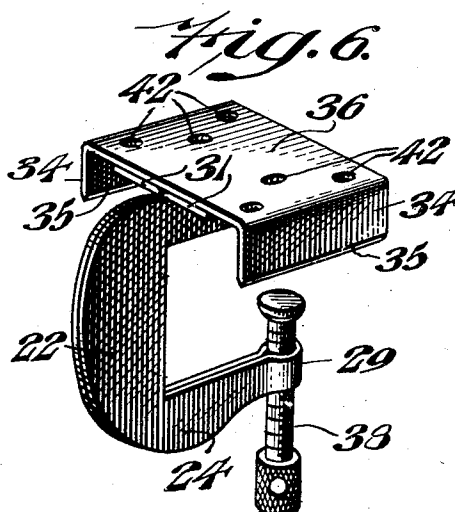
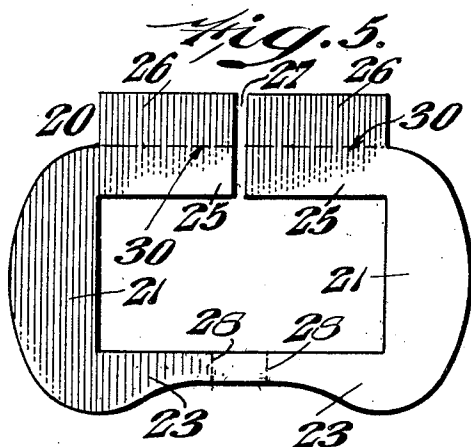
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METHOD OF MAKING CLAMPS AND THE BLANKS FOR THE SAME

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2 Sheets-Sheet 2



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METHOD OF MAKING CLAMPS AND THE BLANKS FOR THE SAME

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Our invention relates to a new and useful method of making a clamp and the blank for the same, whereby a novel, integral clamp of pressed steel is produced by a very simple operation and at minimum cost.

Our invention further relates to a novel method of making a clamp from a novel blank whereby a novel clamp is produced which in addition to being adapted to be detachably secured to a support such as a table, shelf, or the like, is at the same time provided with an upper support to which any desired article can be detachably secured, to hold a variety of articles in position for temporary use with the aid of a single clamp.

Our invention further relates to a novel clamp which may be made of a single standard size if so desired, but which, at the same time, is provided with supporting means, adapted to support articles of different kinds and sizes to afford maximum adaptability for practical use.

To the above ends our invention consists of the novel clamp and method of making same, all as hereinafter described and claimed.

For the purpose of illustrating our invention we have shown in the accompanying drawings two forms thereof which are at present preferred by us, since the same have been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which our invention consists can be variously arranged and organized and that our invention is not limited to the precise arrangement and organization of the instrumentalities as herein shown and described.

In the accompanying drawings:

Fig. 1, represents a plan view of a blank stamped out of pressed sheet metal, steel or the like from which our novel clamp is made.

Fig. 2, represents a perspective view of a novel clamp made from the blank shown in Fig. 1.

Fig. 3, represents a front view of our novel clamp shown secured to the edge of a table and supporting an article shown in dotted lines.

Fig. 4, represents a side view of Fig. 3.

Fig. 5, represents a plan view of another

form of blank stamped out of pressed steel or the like from which a modified form of our novel clamp is made.

Fig. 6, represents a perspective view of a modified form of a clamp made from the blank shown in Fig. 5.

Fig. 7, represents a plan view of a top supporting plate for the clamp shown in Fig. 6, said plate being stamped out of the body of the blank shown in Fig. 5.

Fig. 8, represents a front view of the modified form of clamp shown secured to the edge of a table and supporting an article shown in dotted lines.

Fig. 9, represents a side view of Fig. 8.

Referring to the drawings, in which like reference characters indicate like parts, 1 designates a blank stamped out of thin sheet metal, as steel or the like, comprising a body having the externally convexed portions 2 which in the finished clamp form upright arms or supports and which are joined by the bottom, convexed, transverse portion 3 which forms the horizontal supporting arm of the finished clamp. The upright portions 2 merge into the inwardly extending horizontal portions 4, which are provided with the parallel extensions 5, which are bent to form the horizontal supporting portion 5* of the finished clamp, as will be understood from Fig. 2. The parallel members 5 of the blank are separated by the slot 6*.

To form the finished clamp seen in Fig. 2 from the blank seen in Fig. 1, the lower transverse portion 3 is bent along the lines 6 to form an internally threaded eye 7 for receiving the clamping screw 8. The portions 2 are folded into contact, as seen in Fig. 2, and the outward extensions 5 of the upper transverse portions 4 are bent along the lines 10 to form the pendant flanges 11, which are adapted to grip the upper surface of the table 12 or other support, said flanges 11 being of the same width or height when deflected as the width or height of the upper transverse portions 4, as will be understood from Figs. 1 and 2. The portions 5 of the blank are bent oppositely on the lines 9 to form the horizontal supporting portions 5*, as seen in Fig. 2. The outer extensions 5 of the blank in the finished clamp

appear as seen in Fig. 2 and provide upper horizontal supports 5*, and are provided with the holes 13 which are adapted to receive screws, rivets, or other fastening devices 15 for supporting any desired article 14 such as a knife sharpener, potato scraper, or the like.

It will be seen from the foregoing that a very rigid and durable clamp is produced having three upper pendant portions engaging the top of the shelf or table, while the body of the clamp is composed of a reinforced upright and an integral, lower, horizontal member having the threaded eye 7.

In order to adapt our finished novel clamp for supporting a variety of articles of different kinds and sizes, we provide a plurality of holes 13, suitably spaced and aligned, so that the same will register with the fastening holes provided in a wide range of articles, it being understood that longitudinal and transverse slots can also be provided if desired for the same purpose without departing from the scope of the invention.

It will thus be apparent that any desired object or utensil such as a knife sharpener or the like can be first detachably secured to the upper supports 5* formed by the extensions 5; and the clamp can then be fastened to the edge of a table or other support by tightening the screw 8 against the bottom surface of said support with the pendant flanges 4 and 11 gripping the upper surface of said support at three points.

To guard against slippage or accidental displacement of the clamp, we provide the pendant flanges 4 and 11 with the bottom knife edges 16 which will more firmly grip the upper surface of the support to which the clamp is secured.

In Fig. 5 we have shown a modified form of a blank 20 and method of bending the same to form a modified form of clamp, comprising a body having the externally convexed portions 21 which when folded constitute the reinforced upright support 22 of the finished clamp and which are joined by the bottom convexed transverse portions 23 which when folded into contact with each other form the lower horizontal supporting arm 24 of the finished clamp, as best seen in Fig. 6. The upright portions 21 merge into the inwardly extending horizontal portions 25, which are provided with the ears 26, said portions 25 and ears being separated by the slot 27.

To form the finished clamp the lower transverse portions 23 are bent along the lines 28 to form the internally threaded eye 29, simultaneously bringing the upright portions 21 into contact to form the upright support 22. The extensions 26 are bent at right angles to the portions 25 along the lines 30 to form the horizontal flanges or supports 31.

A supporting plate 32 is cut out of the body of the blank 20, seen in Fig. 1, and the outer ends thereof are bent along the lines 33 to

form the pendant or right angled flanges 34 having the knife edges 35. The plate 32 is spot welded or otherwise permanently secured to the flanges 31 to form an upper horizontal support 36 and the finished clamp now appears as seen in Fig. 2. The clamp is secured to the edge of a table, shelf or other support 37 by tightening the screw 38 against the bottom edge of the table 37, while the knife edges 35 of the pendant flanges 34 grip the upper surface of the table, as best seen in Fig. 8. A knife sharpener 40 may be secured to the supporting plate 36 by the screws 41 passing through the holes 42. In order to adapt the supporting plate 36 for fastening a variety of objects, it is provided with a plurality of spaced, aligned, or staggered holes, as may be desired, to register with the corresponding fastening holes which may be on the article to be secured.

While we have in this particular illustration cut the plate 32 which forms the support 36 from the body of the blank, and thus utilized material which would otherwise be wasted, it is to be understood that this is only done for purposes of economy when it also serves convenience, and that for the accommodation of large articles, it is within the scope of our invention to cut the plate 32 in any desired size from any desired blank of sheet metal and fasten the same to the upper supports 31 of the clamp, as seen in Fig. 6.

It will be noted, however, that in both forms of our invention we employ the principle of stamping from a sheet of pressed steel, a blank which can be folded or shaped to form a clamp, which is not only neat, light and inexpensive, but one which is unbreakable and highly durable.

By varying the size of the supports 5* or 36, and by properly arranging the holes 13 and 42 therein our novel clamp is adapted to support a great variety of different articles, so that one standard size of clamp or a relatively small range in the size of clamps will be sufficient for all practical purposes.

We are aware that the invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof, and we therefore desire the present embodiment to be considered in all respects as illustrative and not restrictive, reference being had to the appended claims rather than to the foregoing description to indicate the scope of the invention.

Having thus described our invention what we claim as new and desire to secure by Letters Patent, is:—

1. A blank of the character stated, comprising an apertured body portion having thickened sides, a base and upwardly projecting parallel extensions integral with said sides and separated by an elongated slot, said body being adapted to be bent axially to form a lower eye and a clamp body, and at its upper

portion to be bent transversely to form horizontal supporting flanges.

2. A blank for a clamp of the character stated, comprising an apertured body portion having convexed sides, a concaved base, and upwardly projecting parallel extensions separated by an elongated slot, said body being adapted to be bent axially to form a lower eye and at its upper portion to be bent transversely to form horizontal supporting flanges.

3. A blank for a clamp of the character stated, comprising an apertured body portion having convexed sides, a concaved base, and upwardly projecting parallel extensions separated by an elongated slot, said body being adapted to be bent axially to form a lower eye and a clamp body and at its upper portion to be bent transversely at two points to form horizontal supporting members and to form outer vertical pendant flanges.

4. The method of forming a clamp, which consists in first forming an apertured blank having sides, a base portion and upwardly extending parallel extensions integral with said sides and separated by an elongated slot, bending the base of said blank on an axial line to bring said sides into contact and to form a lower eye, and lastly bending said parallel extensions transversely in opposite directions to form horizontal supporting members.

5. The method of forming a clamp, which consists in first forming an apertured blank having sides, a base portion and upwardly extending parallel extensions integral with said sides, and separated by an elongated slot, bending the base of said blank on an axial line to bring said sides into contact and to form an eye, bending said parallel extensions on two transverse lines so as to form horizontal supporting members having outer pendant terminal flanges and intermediate pendant flanges whereby three members are formed to engage the top surface of a support.

6. The method of forming a clamp which consists in forming a blank having sides, a base portion and a top portion, bending said blank on an axial line to bring said sides into contact whereby a vertical support is formed, and to double said base and top portions upon themselves to form lower and upper horizontal jaws, forming an eye in one of said jaws, and forming a bearing surface in the other of said jaws.

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