

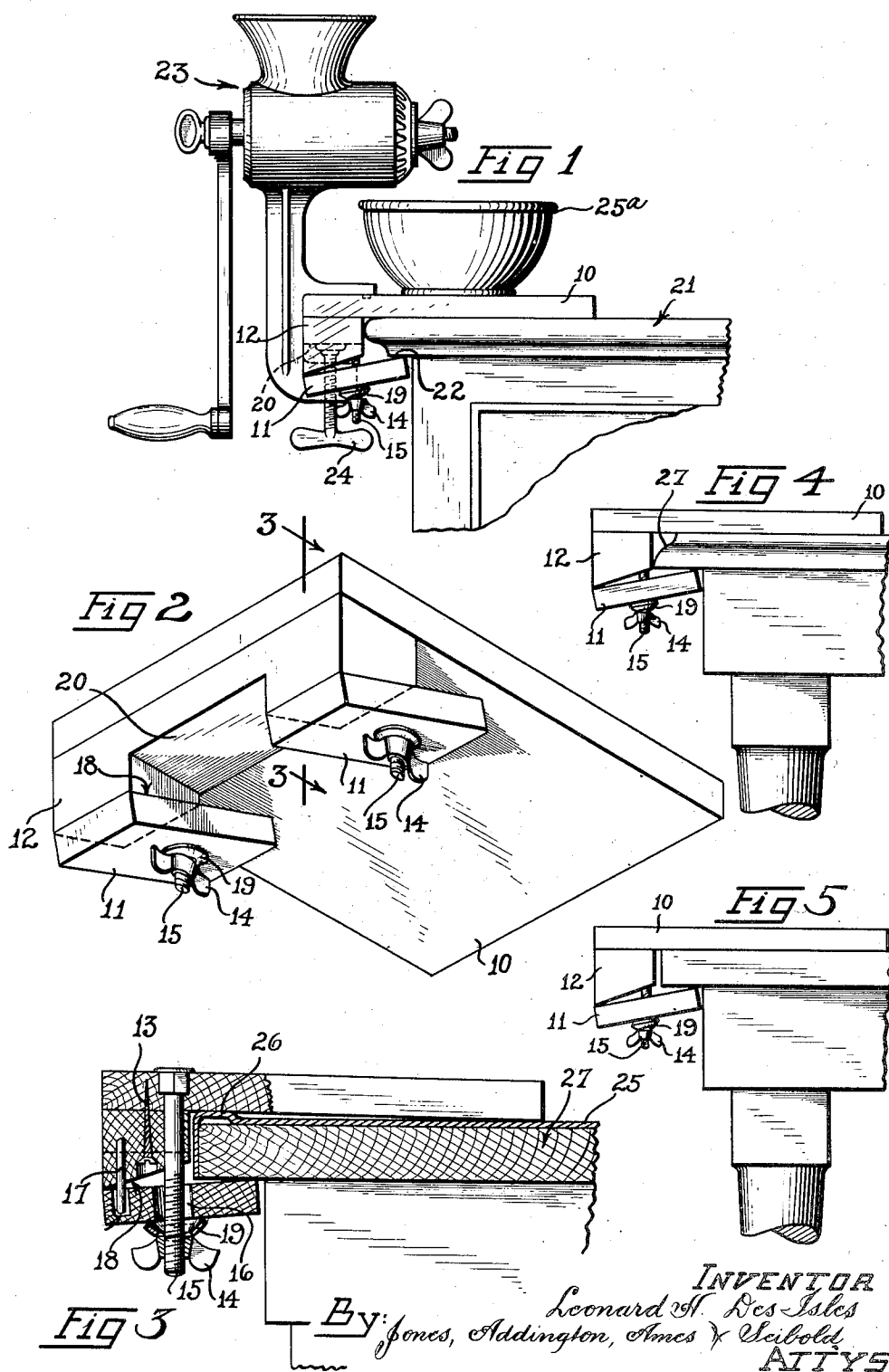
Oct. 16, 1934.

L. H. DES ISLES

1,977,431

SUPPORTING CLAMP

Filed April 22, 1933



UNITED STATES PATENT OFFICE

1,977,431

SUPPORTING CLAMP

Leonard H. Des Isles, Chicago, Ill.

Application April 22, 1933, Serial No. 667,373

8 Claims. (Cl. 45—75)

My invention relates primarily to a supporting clamp to enable such utensils as the hand-operated meat and food grinder and other similarly attachable devices to be firmly, safely and conveniently clamped for use to the articles of furniture, shelving or other supports to be found in the modern kitchen, pantry, or home.

In such places where porcelain-enameled topped tables and built-in cupboards and shelves prevail, there is ordinarily, and in fact almost invariably, no satisfactory or possible place to clamp such utensils and devices, even though their use is in frequent demand.

In the case of built-in shelves, the projecting edge or ledge is frequently too short or narrow to accommodate the lower jaw of the clamp of the utensil or to permit its clamping screw to obtain a suitable seat thereon. In some instances, the lower edge of the ledge is curved inwardly for ornamental purposes, but this narrows the available gripping space on said lower edge and prevents its use for the desired purpose. In others, a molding strip is fitted beneath the ledge, which also prevents clamping, and in still others the vertical structure beneath the ledge prevents turning of the clamping nut, which necessarily has extended wings, so that the utensil cannot be attached thereto.

In the case of porcelain-enamel topped tables and shelves, the finish is practically certain to be injured by directly clamping the device thereto. Such clamping jaws are usually of metal. They chip or scratch the finish in applying and detaching the same. They tend to slip and twist on the surface in the use of the utensil and thus to scratch or mar the surface. To overcome this apparent looseness the clamping screw is apt to be tightened too much with the result that the surface is practically sure to be damaged.

It is an object of my invention to provide means for overcoming the obstacles and objections referred to, as well as others, and for accomplishing the desired results of enabling such utensils and devices to be readily and firmly secured to any such available support or to any finely finished surface, such as those of dining tables, desks, etc., without damage or injury to the surfaces and without excessive tightening of the clamping screws.

In carrying out my objects and invention, I provide a supporting clamp between the utensil and support having means for enabling it to be easily, firmly and safely attached to, and as readily detached from, any available support of the

character described, and having a projecting clamp-receiving portion or ledge for the proper and ready reception of the clamping members of the utensil and providing ample room for manipulating its clamping screw.

This supporting clamp is preferably made of non-metallic material, or with non-metallic contact surfaces, to prevent injury to the surfaces to which it is to be attached, and is provided with a plurality of spaced attaching clamps whereby to divide the necessary clamping effect between them and the better to resist the twisting or torsional strains on the device when the utensil attached thereto is being operated. Also, the body or base portion of the clamp which is positioned on the shelf or surface to which the utensil is to be secured affords preferably a large contact area without sharp points or ridges which would tend to indent, scratch or mar the surface, and which extended area offers frictional resistance to turning, particularly at points remote from the clamping center of the utensil about which such turning and twisting effects are exerted.

The body or base portion may serve also as a support or rest for the dish or receptacle into which the grinder or like device discharges or as a support for the extended body or frame of the utensil, if it is of that type.

The projecting ledge of the supporting clamp to which the utensil is adapted to be clamped affords room for the edge-gripping clamps and the operating means of the device itself, one on either side of the utensil clamping space, whereby the same may effectively grip even a narrow lower edge and thus firmly secure the unit and utensil in places and to supports otherwise not usable for the desired purpose.

Furthermore the utensil clamping portion is preferably non-metallic and more or less yielding, like wood, which enables the metal clamp and screw of the utensil to be firmly seated and gripped thereon without excessive tightening of the clamping screw.

The unit as a whole presents a neat appearance and is comparatively cheap to manufacture.

Further objects and advantages will appear from the detailed description and claims to follow in connection with the accompanying drawing which illustrates an embodiment of the invention, and in which:

Figure 1 is a side elevation of the device with a conventional meat grinder attached thereto and the unit attached to the narrow edge of a

support, such as the shelf of a built-in cabinet or cupboard;

Fig. 2 is a perspective view of the supporting clamp viewed from its underside;

Fig. 3 is a cross-sectional view of the same taken on the plane 3—3 of Fig. 2 and showing the same clamped in position to an enameled-top table or shelf;

Fig. 4 is a side elevational view of the unit clamped to another type of support; and

Fig. 5 is a side elevational view of the same clamped to still another type of support.

Referring to the drawing, the supporting clamp comprises a base plate 10 of suitable size and material adapted to be secured on the top of a table, shelf, or other support, a portion of said plate preferably comprising an upper clamping means and the remaining portion providing an overhanging ledge or edge extending beyond the edge of the support, to which edge the utensil may be clamped. This plate is preferably of wood, which will not injure the enameled top of the table or shelf, and is of sufficient size to provide ample contact area and gripping surface with the support, and of sufficient strength rigidly to support the utensil. I have found that such a plate approximately $\frac{5}{8}$ in. thick, 6 in. wide, and $7\frac{1}{2}$ or 8 in. long, with the other parts in proportion, gives good results, but do not wish to be confined to these dimensions.

In order that this plate may be easily and properly secured to the support to withstand the strains put upon it and be held firmly in position on smooth surfaces even though the securing ledge is narrow, I provide the plate 10 with lower clamping means, such as the jaws or members 11 which are supported and operated from the extended or overhanging end of the base plate 10 to cooperate with the clamping portion thereof, and the free ends of which members 11 extend inwardly a substantial distance and form gripping means to engage the underside of the ledge or edge of the support. By this means even a comparatively narrow ledge on the support affords a good gripping hold for the clamping members while their operating means is not interfered with by the adjacent structure of the support, and full advantage is taken of the entire width of the narrow ledge by the end grips of the clamps. Obviously the farther in from the edge of the table or support the clamps take hold, the firmer will the plate 10 be clamped to the top.

These lower clamping members 11, also preferably of wood, are fulcrumed at their outer or forward ends on the outer edge of the filler member 12 between the base plate 10 and said lower clamping members, the filler block or member 12 being suitably secured, as by screws 13, to the lower face of the projecting end of supporting plate 10 and serving to stiffen said plate and prevent its warping as well as constituting a stop to engage the forward edge of the support if the width of the lower ledge permits, whereby the clamping unit is properly positioned on the support; and the stop 12 also assists in preventing the turning and twisting of the unit in the use of the utensil. Such member 12 being likewise preferably of wood, the edge of the support is protected from being chipped or scratched. Moreover, the said member affords a seat for the clamping screw of the utensil, as hereinafter described.

These lower clamping members 11 are suitably operated as by thumb-nuts 14 threaded on the

lower ends of bolts 15 which pass through the plate 10 and member 12 near its inner edge and through suitable slots 16 in the members 11. These bolts, nuts and slots prevent the clamps 11 from becoming separated when the unit is not attached to the support. A pin 17 projecting from the bearing member 12 into a suitable opening in the inner face of the clamping member 11 prevents the latter from turning on the bolt 15 or getting out of position at any time.

The lower face of the member 12 above the clamps 11 is bevelled or slanted as at 18 to permit freedom of closing movement of the clamps 11 to accommodate them to different thicknesses of support. The washers 19 beneath the thumb-nuts 14 are concave to afford a suitable bearing for the nuts when tightened regardless of the pitch or slant of the clamping members 11.

The clamps 11 are spaced apart as far as possible within the limits of the device, the better to resist the turning and twisting effects on the plate which are mainly exerted at the clamping axis of the utensil which is between the two clamping members.

As before referred to, the overhanging end of the base plate or that portion extending beyond the clamping portion thereof forms a projecting ledge or edge to which the utensil sought to be used may be conveniently secured. Though integral in this instance with the plate 10, this projecting ledge constitutes a comparatively narrow member adapted to be positioned at the edge of the top of the table or like support to receive the attaching vise, clamp or means of the utensil whereby to position and support the utensil at the edge of the top or the like and enables the same to be rigidly and firmly secured thereto. In the embodiment illustrated in the drawing, and with the dimensions hereinbefore mentioned, this comparatively narrow member which extends or projects beyond the edge of the table or other support is approximately $1\frac{1}{2}$ in. or 2 in. in width, and it is a width of that general order or proportion which is contemplated herein by the use of that expression. The utensil is clamped to this comparatively narrow member. To enable this to be done with greater facility in the embodiment shown the lower face of the spacer or filler member 12 in the particular dimensions and proportions of the unit shown, is cut away as at 20 to accommodate the conventional clamp of such utensils. These clamps being of metal and the members 10 and 12 being of wood and therefore more or less compressible, a very secure clamping of the utensil to the unit is possible and may be obtained without applying excessive effort to the clamping nut. Moreover, the distance from the vertical structure of the table, shelf, or other support is such that the convenient turning of the clamping screw of the utensil is not obstructed.

In Fig. 1, the supporting clamp is shown attached to the shelf 21 of a built-in structure of common type in which the shelf has but a narrow projecting edge 22 on the underside. A conventional food grinder 23, such as that shown, could not be attached directly to such a shelf, but as indicated is readily clamped to the supporting clamp. The upper clamping jaws of the utensil rest on the top of the projecting portion of supporting plate 10, and its clamping screw threading through its lower lateral projection readily seats on the portion 20 of the member 12 of the unit. The wings 24 of this clamping thumb screw, although widely extended, have ample room for turning and are not obstructed in their manipu-

lation by the vertical structure beneath the shelf or top 21. The utensil is thus firmly supported by the clamp.

A dish or receptacle 25* for the material discharged from the grinder may be placed on the plate 10, or if the frame of the utensil extends inwardly it may find support on the body of plate 10.

In Fig. 3 the clamp is shown attached to an enameled-top table or shelf of common construction. In this the enamel-coated sheet metal top 25 has a slightly raised portion 26 around the edge and fits over a wood top 27, or over a suitable wood framework. Owing to the fact that the supporting clamp is made of wood or other material having non-metallic surfaces liable to contact with the enamel finish of the top, there is no danger of nicking, cracking or scratching the finish. Moreover, the clamping pressure on the enameled surface is not concentrated as at a single clamp but is spread over a considerable area by the plate 10 and therefore does not injure the enamel finish. It will be noted also that the inner end of the plate 10 is brought into contact with the top 25, this being brought about or assisted by the engagement of the clamps 11 at their inner ends with the underside of the table top at a substantial distance inwardly from the edge. This causes the plate 10 to clamp down upon the top surface at its inner end as well as at the raised portion 26. This also assists in securing lateral stability of the device.

Fig. 4 shows the supporting clamp attached to a table top or other support which has an ordinary molded edge. Here again the plate 10 is held firmly in position by the clamp members 11, so that a utensil may be secured thereto without injury to the finished surface.

Fig. 5 shows the clamp attached to a square edged top or support with narrow ledge. This also affords a secure mounting for the clamping support which may be used in any desired manner or for any desired purpose without injury to the finish of the support.

The clamping unit thus provided may be readily attached to and detached from any convenient support, such as those referred to or others, and the utensil may be easily clamped thereto or removed therefrom. The device is neat and trim appearing, does not take up much space, and is comparatively cheap to manufacture. It is obvious that various changes may be made therein without departing from the spirit and scope of my invention as sought to be defined in the appended claims.

I claim:

1. In a device of the character described, the combination with a flat wood base adapted to be positioned on the top of a table or the like and forming one member of a clamp, said base projecting at one edge beyond the edge of the top, of a wood strip secured to the under side of said projecting edge and serving as a stop to engage the edge of the top to position the base on the top, a clamping member adjacent each end of said strip fulcrumed on the under side thereof near the outer edge, the inner ends of said clamping members adapted to engage the under side of the top, a bolt near the inner edge of said strip, one for each said clamping strip and passing through the same, and a thumb nut threaded on the end of each bolt, whereby to tighten said clamping members against the under side of the top and clamp the said base on the top, said strip being fashioned between said clamps to receive the clamping means of a utensil.

2. A detachable supporting clamp to support a clamped kitchen utensil, comprising a member adapted to be positioned on the top surface of a table or the like, the major portion of said member adapted to overlie said top and having a utensil supporting and clamping portion extending beyond but adjacent the edge of the top substantially the width of the utensil clamp; spaced clamping members carried by said member and adapted to engage the under side of the top inwardly from but near the edge firmly to clamp the said member to the top, said extending portion enabling the utensil to be positioned adjacent the edge of the top while providing room for the reception of its clamping vise and the manipulation of its clamping means.

3. A detachable supporting clamp comprising a clamping plate adapted to be positioned on the top of a table or the like, said plate projecting beyond the edge of the top to provide a utensil attaching and supporting member, a transverse member secured to the under side of said plate and serving to position the plate on the top and forming a portion of the utensil attaching member, spaced clamping members fulcrumed toward the outer lower edge of said transverse positioning member and extending inwardly to engage the under side of the top at points inwardly from but near the edge, and means to tighten said clamping members to clamp said plate firmly and rigidly to the top, the position of the utensil-attaching member affording room for the convenient positioning of the clamps of both the supporting member and the utensil and the manipulation of their clamping means unobstructed by the lower structure of the table or other support.

4. A detachable supporting clamp comprising a clamping plate adapted to be positioned on the top of a table or the like, said plate projecting beyond the edge of the top, a transverse member secured to the under side of said projecting portion and serving to position the plate with reference to the top, said projecting portion and said member forming a utensil attaching and supporting member to position the utensil adjacent the edge of the table, spaced clamping members fulcrumed adjacent the outer edge of said transverse projecting portion and extending rearwardly to engage the under side of the top inwardly from but near the edge, tightening bolts passing loosely through said clamping members, and wing nuts on said bolts engaging said members to tighten the same to clamp said plate to the top, the position of said clamps and bolts and the utensil-receiving member affording room for the tightening and loosening of the clamping devices of both the support and utensil to enable the same to be firmly attached to a narrow projecting ledge of the top without interference with the structure therebeneath.

5. A detachable supporting clamp comprising a plate adapted to be positioned on the top of a table or like support, said plate extending only sufficiently beyond the edge of the top to provide a comparatively narrow projecting ledge, spaced clamping members carried by said extension and engageable with the under side of the top to clamp the plate firmly to the top, said extension being adapted to receive the clamping or securing means of a utensil between said spaced clamping members, the said ledge permitting the positioning and attachment of the utensil adjacent the edge of the top while affording room for manipulation of the clamp operating means of both utensil and supporting clamp.

6. A detachable clamping support for kitchen utensils comprising a comparatively narrow member having provision for the ready and secure reception of the clamping vises of the utensils to position them at the edge of a table top or the like, said member overlying and gripping the top surface of the table top or the like, laterally spaced lower clamping means carried by said member and projecting forwardly to grip the lower side of the projecting ledge of the top or the like near the outer edge of the same, whereby the utensil may be supported adjacent the edge of the top and the clamping operating means of both the utensil and the supporting clamp are unobstructed by the adjacent vertical supporting portions of the structure of the table or the like. 80
7. A supporting clamp comprising a substantially rectangular wood plate or base adapted to be placed on the top of a table or the like with an edge portion extending over the edge of the top, a transverse member secured to the under side of the extended edge portion to position the clamp on the top, said extending portion and member carrying clamping means engageable with the under side of the top near the edge to clamp the plate firmly to the top and forming a support for receiving and securing the clamping vise of the utensil to the plate and whereby the clamp operating means of both the supporting clamp and utensil may be readily manipulated without obstruction from the adjacent portions of the table or other object to which the clamp and utensil are attached. 85
8. A detachable supporting clamp to support a clamped kitchen utensil, comprising a member adapted to be positioned at the edge of the top of a table or the like, the major portion of said member adapted to overlie said top and used to form a support, said member extending beyond the edge of the top substantially the width of the utensil clamp to receive the latter, and means to clamp the member to the top. 90 95

LEONARD H. DES ISLES.

25	100
30	105
35	110
40	115
45	120
50	125
55	130
60	135
65	140
70	145
75	150