My invention is an improvement in wear-strips for pieces of furniture such as desks, chairs and other similar articles, such as trunks, footstools and even to wainscoting. It consists of a thin strip of flexible material which may be of some form of caschotch, or a similar composition, with or without caschotch as an ingredient, and which may wholly or partially be vulcanized.

Such wear-strips have as a feature thereof, means integral therewith for direct attachment to the object to be protected. Different forms of such attaching means may be used and a number of modifications thereof are herein illustrated and broadly claimed. It is a special object of my invention to provide wear strips or protectors having elongated under pieces of enlarged form which may readily be inserted into grooves in the object or article to be protected by forcing the enlargements thereinto by pressure exerted from the outside, or by pressing the extension of the article to be protected into the hollow portion of the protector, when such form of structure is used.

Other objects and advantages will appear in the following detailed description of my invention embodied in the combination and arrangement of parts particularly recited in the appended claims, and illustrated in the accompanying drawings forming part of this specification, and in which:

Figure 1 is a plan view of the wear strip applied to a groove in a block; Figure 2 is a transverse section of the same, taken in the plane indicated by the line 2—2 of Fig. 1;

Figures 3 and 4 are plan and transverse sections, respectively, of a modified form of the product, the section being taken on the line 4—4 of Fig. 3;

Figures 5 and 6 are plan and transverse sections, respectively, of another modification, the section being taken on the line 6—6 of Fig. 5;

Figure 7 is a transverse section taken on the line 7—7 of Fig. 5;

Figures 8 and 9 are plan and transverse sections, of a further modification, the section being taken on the line 8—8 of Fig. 8;

Figure 10 is an elevation of a portion of a circular body having a peripheral portion secured thereto;

Figure 11 is a transverse section taken on the line 11—11 of Fig. 10;

Figure 12 shows in sections three modified forms of bodies similar to those illustrated in Figs. 2, 4, and 6, but having their attaching portions somewhat extended, as they appear before being inserted in a compressing groove or aperture;

Figures 13 and 14 show similar views of other modified forms similar to those shown in Figs. 9 and 11;

Figure 15 is a side elevation of an elongated central body with attached wear strips;

Figure 16 is a transverse section of the same as taken on the line 16—16 of Fig. 15;

Figure 17 is a transverse section of a standard structure having a wear covering applied thereeto, and as shown when taken on line 17—17 of Fig. 21;

Figure 18 is a plan view of a structure with portions broken away, and a wear strip applied thereto by means of flexible plugs on the under side of the strip;

Figure 19 is a transverse section of the same as taken on the line 19—19 of Fig. 18;

Figure 20 is a side elevation of an office chair having a wear strip of flexible material applied externally to the chair seat, arms, back and base;

Figure 21 is a front elevation of an office desk illustrating the application of wear strips to the vertical edges thereof, and to the horizontal edges of the top;

Figure 22 is a vertical section as taken on the line 22—22 of Fig. 21;

Figure 23 is a transverse section of a desk standard as taken on the line 23—23 of Fig. 21;

Figure 24 is a transverse section taken in the plane indicated by the line 24—24 of Fig. 20;

Figure 25 is a transverse section taken on the line 26—26 of Fig. 20;

Figure 26 is a transverse section of a portion of a desk drawer and the handle therefor, as shown on the line 26—26 of Fig. 21;

Figure 27 is an isometric view of two polygonal blocks having longitudinal grooves in their edges facing each other, with a protecting strip applied between the two grooves and filling the same;

Figure 28 is a plan view of a metal structure and a wear strip applied thereto, and of the form shown in Fig. 8;

Figure 29 is a transverse sectional view of the same shown in the plane indicated in line 29—29 of Fig. 28;

Figure 30 is a sectional view of a further modifi ed form of a wear strip applied by a tongue and flanges to a wooden body, and

Figure 31 is a still further modification of a protective strip having a tongue and flanges applied to a grooved metal strip, which latter is
further secured to a wooden body. The combination is shown in transverse section.

Referring to the drawings, my improved wear strip 5 is shown in Figs. 1 and 2 as an elongated strip of the desired composition of flexible material comprising the external or wear portion 6 supported upon an elongated tongue 7 which in cross section appears having its largest area at the base and a triangular wear portion 6, the tongue being adapted to being tightly inserted in the rather narrow groove 8 at the edge of a strip of wood 9, which latter may serve as a leg of a chair, desk or other body.

In Figs. 5 and 4 the arrangement of the strip in the groove is much the same as that given in the first form, except that the tongue is divided lengthwise of the strip for a shallow depth to make easier its insertion in the groove 11, in which this form is shown on the flat surface 20 of the block 12. The wear portion is here shown at 13 as approximately semicircular.

In Figs. 5 to 7, I have shown the wear strip 16 as provided with protrusions 16 designed to be inserted in the surface of a body 15, usually of metal. Here the inserts 16 are formed as widely spaced and elided, integral plugs 17, designed to be inserted in correspondingly spaced apertures 18 in the metal plate 15, while the remainder 16a of the strip is unattached to the metal, save as the spaced plugs 17 bind the strip thereto.

In Figs. 8 and 9, the elongated tongue 19 of the broadened strip 30 is inserted in the elongated slot 21 of the metal plate, the base 22 of the tongue having squared lateral edges 23 to make easier the insertion.

The modified form shown in Figs. 10 and 11 is much similar to the preferred form in Fig. 1, except that the combined body 24 with groove 23 is lengthwise thereof, and the wear strip 25 attached thereto forms a combination that is oval in cross section. In Figs. 12, 13 and 14, are shown cross sections of the protectors disclosed in Figs. 1 to 7, respectively, though designed to show clearly that the tongues or plugs of these pieces are perceptibly larger in their detached showing, over that which they assume after being inserted in the bodies intended to receive them. This makes quite desirable the use of more or less material for the protector strip in all these forms. As the ordinary tongue or plug in each of them, may be normally somewhat larger than the groove or slot in which they are to be inserted, but after being forced into position, they may well be held in place without the use of metal nails or tacks, a desideratum much to be sought for. For the above reason, the grooves 8, 11 and 25 will be narrower at their base, than the base of the parts to be inserted normally is.

Obvious is a wear strip of the character shown in Fig. 9, as applied to a metal product, may be applied to the outer edges of the top of a desk, and is so shown in Figs. 21 and 22. It may also be shown as applied to the arm 27 of a chair or to the forward edge of a chair seat 26, to the back 60 of a chair, or the edge 61 of a chair base, as shown in Fig. 26.

It is often desirable to protect the knobs of desks or drawers, and I have shown in Fig. 17 the manner in which one part may be an elongated wear strip 28 having an edge 30 bent upon itself at 31 to protect the other part which may be the outer edge of a metal plate 32, the inner edge of the wear strip being apertured at 33 to receive therein the standard 34 of the metal plate. The external appearance of such a hand hold will be substantially that shown in Fig. 21. A round knob 35 may be enclosed by a protector 36 of general circular outline but having an inner opening 37 sufficiently large to receive the knob through the reduced opening 38. This form is illustrated in Figs. 21 and 26.

The use of this wear strip structure is not limited to the particular outline so far described, nor to their application to bodies polygonal in cross section. In Figs. 15 and 16, I have shown a modification in which so far as the outline of the strip is concerned, it is much like that shown in Figs. 9, 22 and 25. The perforations, however, peripheral in their external surface, though provided with much the same form of tongue 40 as that shown in many of the other forms. The curved form of the strip (which however may be flat and attached to one another by raised edges) are especially fitted for protecting substantially cylindrical bars 41.

In some instances it is desirable to apply a pad 42 in a notch 33 of a metal plate 44, which arrangement readily serves the purpose of providing a cushioning pad for the inner surface near the edges of metal doors, and as such doors 100 suppress the sound of the closing door. In this case, the flat base 52 of the large plug 15 may be inserted in the aperture 11 of the plate; or a similar pad 45 may be provided with an elongated tongue 19 inserted in an elongated slot 18 of the plate 46.

A further form of my invention is illustrated in Fig. 30, in which the protective strip 45 is applied to the edge of a bar or block 12 by the insertion of the elongated tongue 18 in the elongated groove 3, lateral flanges 46 being provided integral with the protective strip 45. These flanges being bent inwardly as shown in Fig. 30, so that the flanges serve to protect the parallel surfaces of the bar or block while the main portion of the strip protects the edge.

A still further arrangement of the parts is shown in Fig. 31, in which the protective strip 55 is connected to the article 55 by means of a tongue 57 inserted in the groove 56 of a metal 120 strip 54 which is secured to the article 55 by screws 56. Obviously, the heads of the screws are covered by the strip 55. The lateral flanges 56 integral with the strip 55, completely protect the edges effectively, so that no metal may injure other articles.

As a further modification of my composition strip and its mode of application, I have shown the inner position of a flat strip 47 having tongues 48 and 49 on opposite faces thereof and adapted to be received in the grooves 50 of a pair of blocks 51, as shown in Fig. 27. The strip 47 serves in this form as a somewhat cushioning agent between the two blocks.

It is evident that the protective devices 71 described above, not only protect the portions of articles to which they may be applied, but also protect walls having delicate surfaces from scoring action of articles carrying such devices. In any case, a very effective protection 143 is afforded for any two objects of which is provided with the protecting devices.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. An elongated piece of flexible material for attachment to the edges of relatively thin objects of rigid material having an opening therein with enlarged inner base, comprising a body strip having normally bent-in flanges to extend about said.
edges and an integral reduced base portion normally divided but resisting compression by the resilient material thereof, and joined to the body strip by a narrow neck portion, the said opening being adapted to receive the divided base portion while reduced under pressure, to connect the wear piece to the rigid material.

2. A protecting strip of the class described comprising an elongated and laterally flanged pad portion of flexible material adapted to protect a part of rigid material having alined, spaced apertures therein, said flanged pad portion having alined and correspondingly spaced plugs having bases normally divided but permitting reduction of such bases by the resilient material thereof for insertion under pressure in said apertures for detachably connecting said pad portion to said rigid part.

3. Means for protecting rigid articles having an opening therein, comprising a protector strip of yieldable material, the said strip having normally and laterally bent-in flanges for partially encompassing the lateral surfaces of said rigid articles, and an intermediate protuberant portion normally divided and resisting compression by the resilient material thereof, and integral with the said elongated body and spaced from said flanges, the protuberant portion being adapted to be compressed by application of pressure thereon for insertion in said reduced form into an opening in the edge of an article to detachably connect the strip to said article at its edge, while the flanges protect said surfaces thereof.

4. A protector strip of the class described comprising an elongated body of yieldable material having lateral and normally parallel bent-in edges and an intermediate, protuberant base portion normally divided and resisting compression by the resilient material thereof, and integral with the said elongated body and spaced from said flanges, the protuberant portion being adapted to be compressed by application of pressure thereon for insertion in said reduced form into an opening in the edge of an article to detachably connect the strip to said article at its edge, while the flanges protect said surfaces thereof.

5. In combination with a desk or table, a post having an edge portion cut away, and a resilient buffer strip secured to said post and lying substantially within the area formerly occupied by the removed edge portion of the post.

6. In combination with a desk or table, a post having an edge portion cut away, and a resilient buffer strip secured to said post and lying substantially within the area formerly occupied by the removed edge portion of the post, said buffer strip being provided with a rounded front surface.

7. In combination, a desk provided with a central side opening, posts adjacent said opening, said posts having their inner front edges cut away, and resilient buffer strips secured to said posts to resiliently support said removed edge portions, said buffer strips occupying substantially the area formerly occupied by the removed edge portions.

8. In combination, a desk provided with a central side opening, a post on each side of said opening, said posts having their inner front edges cut away and provided with longitudinal grooves, and resilient buffer strips equipped with extensions adapted to engage said grooves, said buffer strips substantially replacing the removed edge portions of said posts.

9. In combination with a desk or table, a post having an edge portion cut away, and a buffer strip secured to said post and lying substantially within the area formerly occupied by the removed edge portion of the post.

10. A leg for an article of furniture having a recess formed lengthwise of an outer portion thereof, and a protective insert arranged in said recess and having its outer surface formed flush with the outer surface of the leg and arranged to receive blows.

11. A leg for an article of furniture having a recess formed lengthwise of a corner portion thereof, and an insert of a tough and non-splintering material arranged in said recess with only the outer portion thereof exposed to view, said outer portion being substantially flush with the outer surface of the leg and protecting said leg from damage resulting from blows on said corner portion.

12. A leg for an article of furniture having a recess formed lengthwise of an outer portion thereof, the edges of said recess being undercut, and a buffer member arranged in said recess and having portions cooperating with said undercut portions to retain said member in said recess, the outer surface of said buffer member being formed flush with adjoining portions of the outer surface of the leg.

13. A leg for an article of furniture having a recess formed lengthwise of an outer portion thereof, and a buffer member of non-metallic material secured in said recess and having its outer edge portions formed substantially flush with the adjoining outer edge portions of said leg.

14. A leg for an article of furniture having a recess formed lengthwise of an outer portion thereof, a portion of said recess being undercut, and a buffer member arranged in said recess and having its outer portion formed substantially flush with adjacent portions of the desk leg, said buffer member having parts adapted to cooperate with said undercut portion of said recess to secure said buffer member in said member.

15. In combination, an article of furniture or the like having an outwardly projecting portion, and having a recess formed lengthwise of said portion, and a protective buffer insert arranged in said recess and having its outer surface formed flush with the outer surface of the said portion of the article and arranged to receive blows.

16. In combination, an article of furniture or the like having an outwardly projecting portion, and having a recess formed lengthwise of said portion, and an insert of a tough and non-splintering material arranged in said recess with only the outer portion thereof exposed to view, said outer portion being substantially flush with the outer portion of the said article portion.

17. In combination, an article of furniture or the like having an outwardly projecting portion, and having a recess formed lengthwise of said portion, and an insert of a tough and non-splintering material arranged in said recess with only the outer portion thereof exposed to view, said outer portion being substantially flush with the outer portion of the said article portion.

H. W. JELLIFFE.