

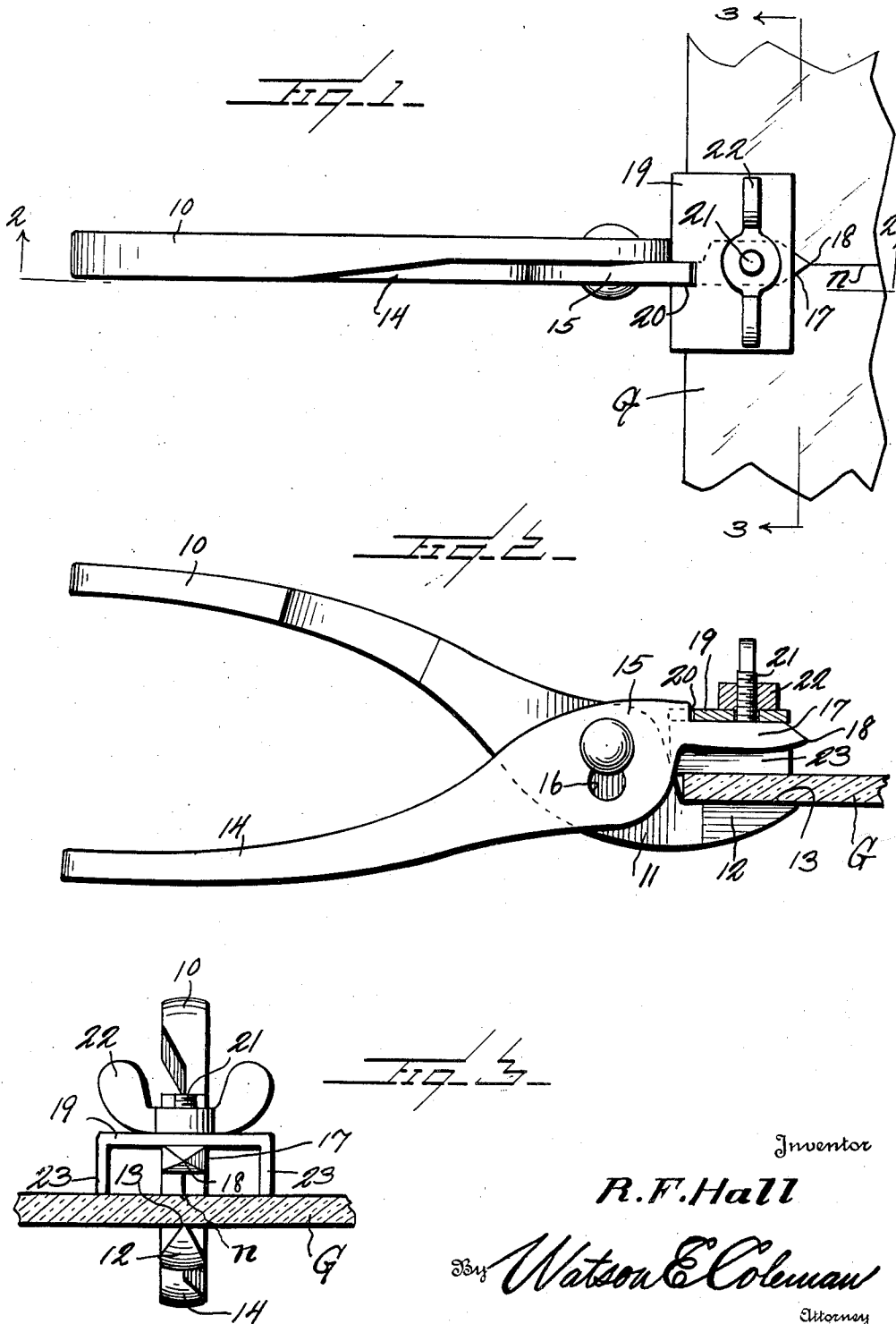
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GLASS CUTTING APPLIANCE

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GLASS CUTTING APPLIANCE

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4 Claims. (Cl. 49—52)

This invention relates to sheet glass cutting and particularly to means for breaking or separating the glass along the line or score previously made by a diamond or other glass cutter.

It is common in cutting glass to first score the glass by a longitudinal nick made by a diamond or other cutter and then very gently and carefully bend the glass on each side of the nick so as to cause the glass to snap along the line of the nick. Unless this is very carefully and expertly done, this glass on one or both sides of the nick is likely to crack along a line at an angle to the nick and much glass is wasted in this manner.

The object of the present invention is to provide means whereby a sheet of glass may be broken along the line of the nick by applying an even pressure at points on opposite sides of the nick and thus eliminate the splintering or cracking of the glass otherwise than along the line formed by the diamond.

My invention is illustrated in the accompanying drawing wherein:

Figure 1 is a top plan view of my implement showing it applied to a sheet of glass.

Figure 2 is a sectional view on the line 2—2 of Figure 1.

Figure 3 is a section on the line 3—3 of Figure 1.

Referring to this drawing, 10 designates one handle of a jaw 11. This jaw is formed with the outwardly projecting glass breaking portion 12, which as shown in Fig. 3, is approximately triangular in section so as to provide a sharp edge 13.

Opposed to the handle 10 is a handle terminating in a jaw 15. This jaw is provided with a slot 16 and a rivet or pin it attached to the jaw 11 and extends through the slot 16. The jaw 15 at its extremity has a longitudinally extending portion 17 which is flat on its under face but is pointed at 18. Mounted upon the upper flat face of the extension 17 of jaw 15 is an inverted U-shaped clamp 19 which is notched at 20 at its rear edge to receive the jaw 15. This notch should be such that the U-shaped element 19 is held to a position exactly at right angles to the plane of the jaw 15. A bolt 21 extends upward from the jaw 17 and extends through the U-shaped member 19. A wing nut 22 engages this bolt and holds the member 19 down tightly against the upper flat face of the portion 17. A plurality of members 19 will be used with this construction and these members have their depending ends 23 spaced at different distances

from each other. Only one of these members 19 is shown but it will be obvious that by releasing the nut 22 that other members may be disposed interchangeably upon the bolt 21. The jaws 11 and 15 may be adjusted toward or from each other by means of slot 16 in an obvious manner so as to suit various thicknesses of glass.

In the use of this device, the point 18 is disposed immediately above the nick *n* in the glass G. This will bring the triangular blade 13 with its edge against the other side of the glass G immediately below this nick. Under these circumstances, the depending portions 23 of the member 19 will be disposed equi-distantly from the nick *n*. If now, the handle be closed with a gentle pressure, the depending portions 23 will tend to force the glass against the sharp edge of the blade 12 and to bend the glass transversely across this sharp edge which is immediately below the nick. By applying the pressure very gently to the glass, the glass will be bent at its edge and this crack so formed will extend along the nick *n* entirely across the glass. The pressure is applied slowly while watching for the crack to start in the glass. The pressure is kept on until the glass is cut the entire distance across. It will take from twenty to forty seconds for the crack or line to travel 12 to 18" along the nick *n*. Where glass is cut on curves, it can be easily divided with this instrument, but the greater the curve, the slower the pressure to be applied.

In actual practice, it has been found that this implement reduces loss of glass to a minimum and saves much time and also very much diminishes the risk to the operator's eyes from the splinters of glass. This device will divide plate glass or thin glass and will work effectively even on ribbed glass either where the cut is across or with the ribs.

What is claimed is:

1. A sheet glass snapping implement, including an element having a long relatively sharp edge, an opposed element having depending end portions, a pointer element disposed equi-distantly between the said depending portions and in the same plane as the sharp edge of the first-named element and extending longitudinally of the tool beyond the forward end of said edge and beyond said opposed element, and means for urging the elements against opposite sides of a piece of glass with the sharp-edged element disposed below a previously formed nick in said glass.

2. A sheet glass snapping implement, including opposed upper and lower jaws pivoted to

each other, each jaw having a handle, the lower jaw having a sharp upper edge, the upper jaw having an inverted U-shaped clamp, and a pointer element disposed in the same plane as the sharp edge of the lower jaw and extending longitudinally of the tool beyond the forward end of said edge and beyond said clamp as and for the purpose stated.

3. A sheet glass snapping implement, including opposed upper and lower jaws pivoted to each other, each jaw having a handle, the lower jaw having a sharp upper edge, the upper jaw having an inverted U-shaped clamp, and a pointer element disposed in the same plane as the sharp edge of the lower jaw and extending longitudinally of the tool beyond the forward end of said edge and beyond said clamp, the clamp being detachable from the upper jaw.

4. A sheet glass snapping implement, comprising pivotally connected opposed jaw members, each jaw having a handle, one of said jaws having an elongated sharp inner edge arranged in opposed relation with the inner face of the

other jaw forming a cutting edge, the said other jaw having its forward end formed to provide a forwardly directed point which is disposed in the plane of the cutting edge of the first-mentioned jaw, the side of the said other jaw opposite from the inner face being flat and having a shoulder at its inner end, a threaded stem secured to and extending from the said flat side of the other jaw, an inverted U-shaped clamp member having a wide flat top portion and spaced parallel angularly extending side portions, said top portion at one longitudinal edge having a recess, the said top portion of the clamp being positioned upon the flat side of the said other jaw with said shoulder engaged in said recess and having an aperture for the extension thereof of said stem, a nut threaded on said stem for securing the clamp to the said other jaw, the said angularly disposed side portions of the clamp being arranged with the said other jaw disposed therebetween.

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