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BLADE ASSEMBLY WITH LATERAL EXTENSIONS

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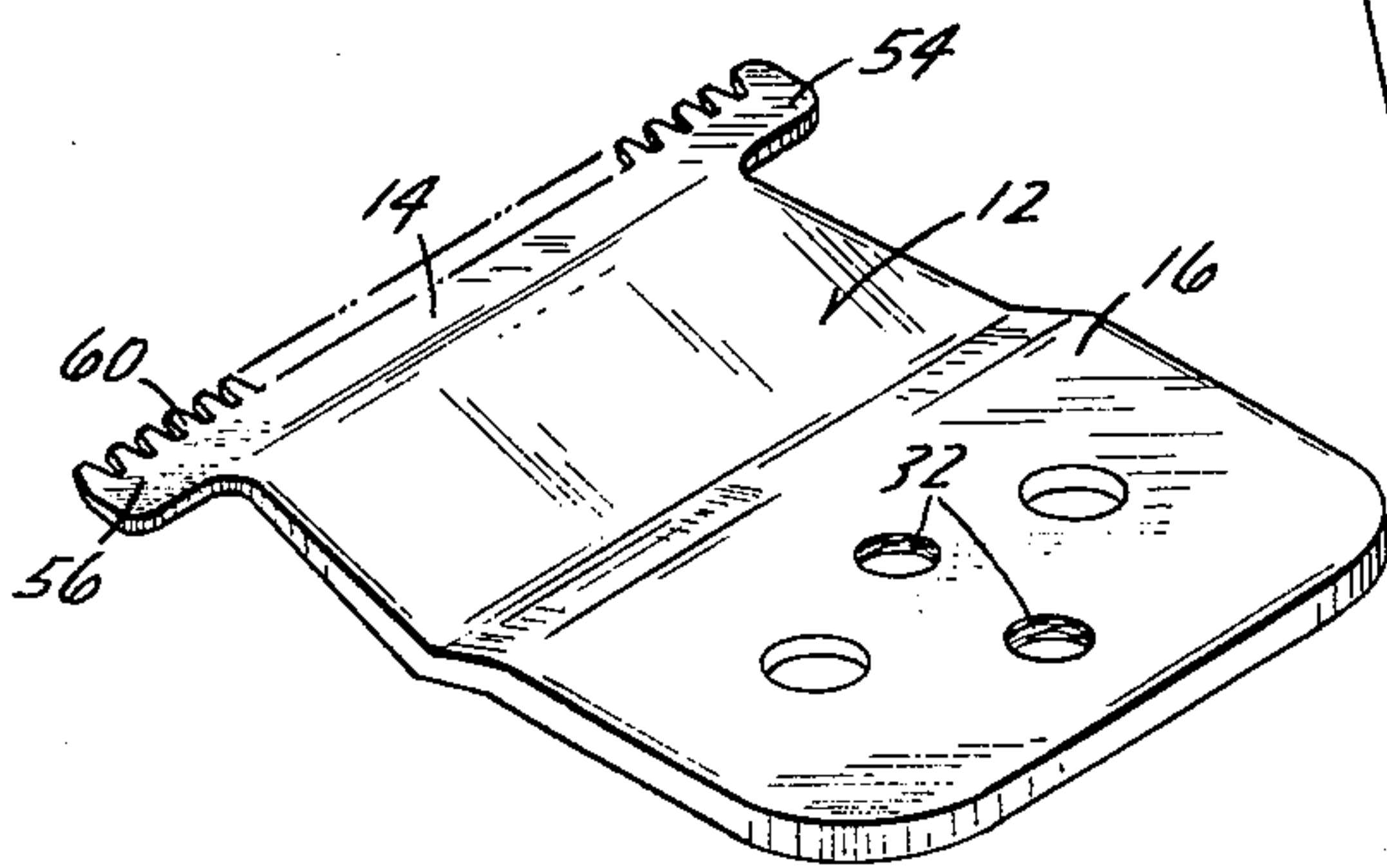
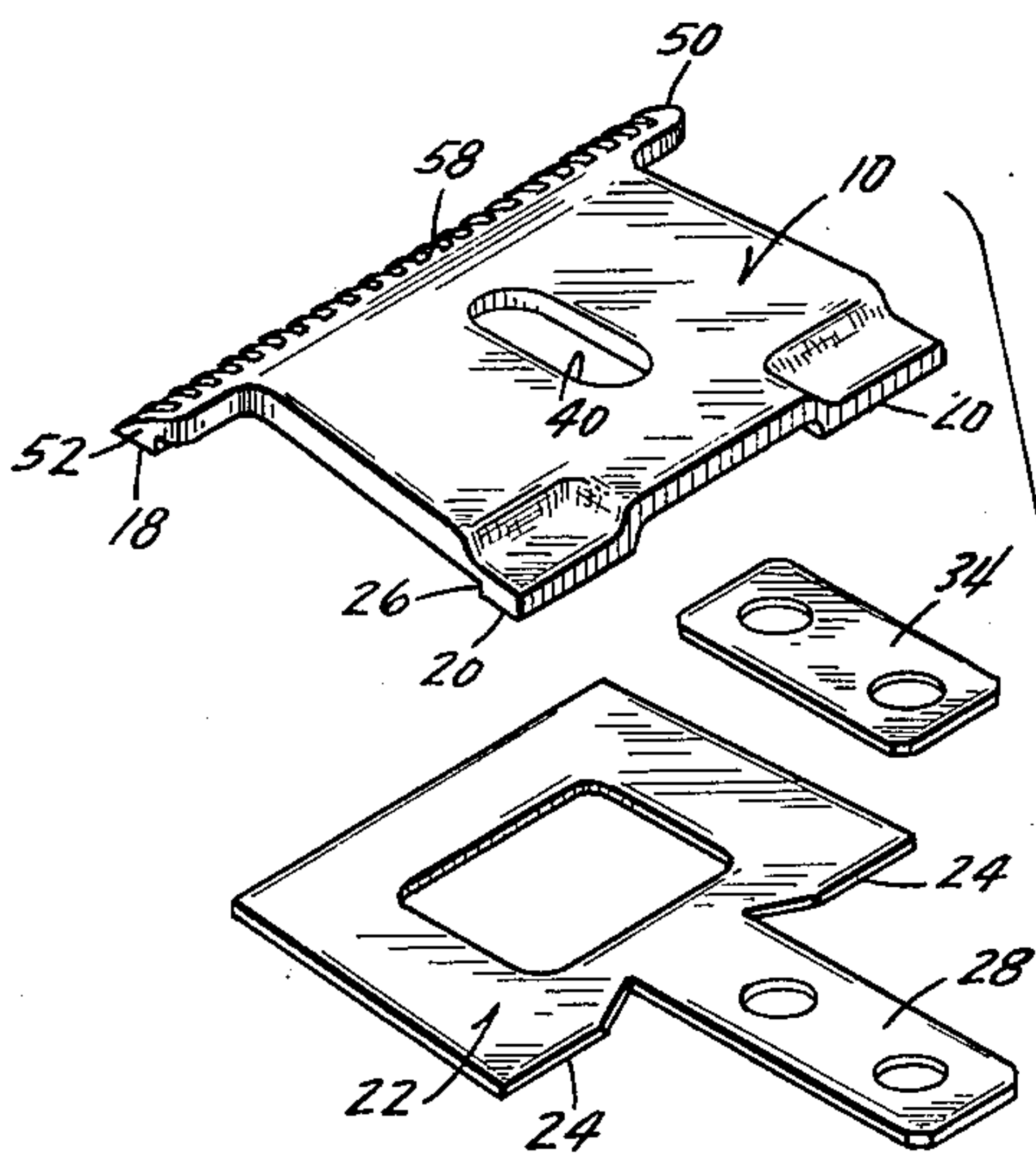
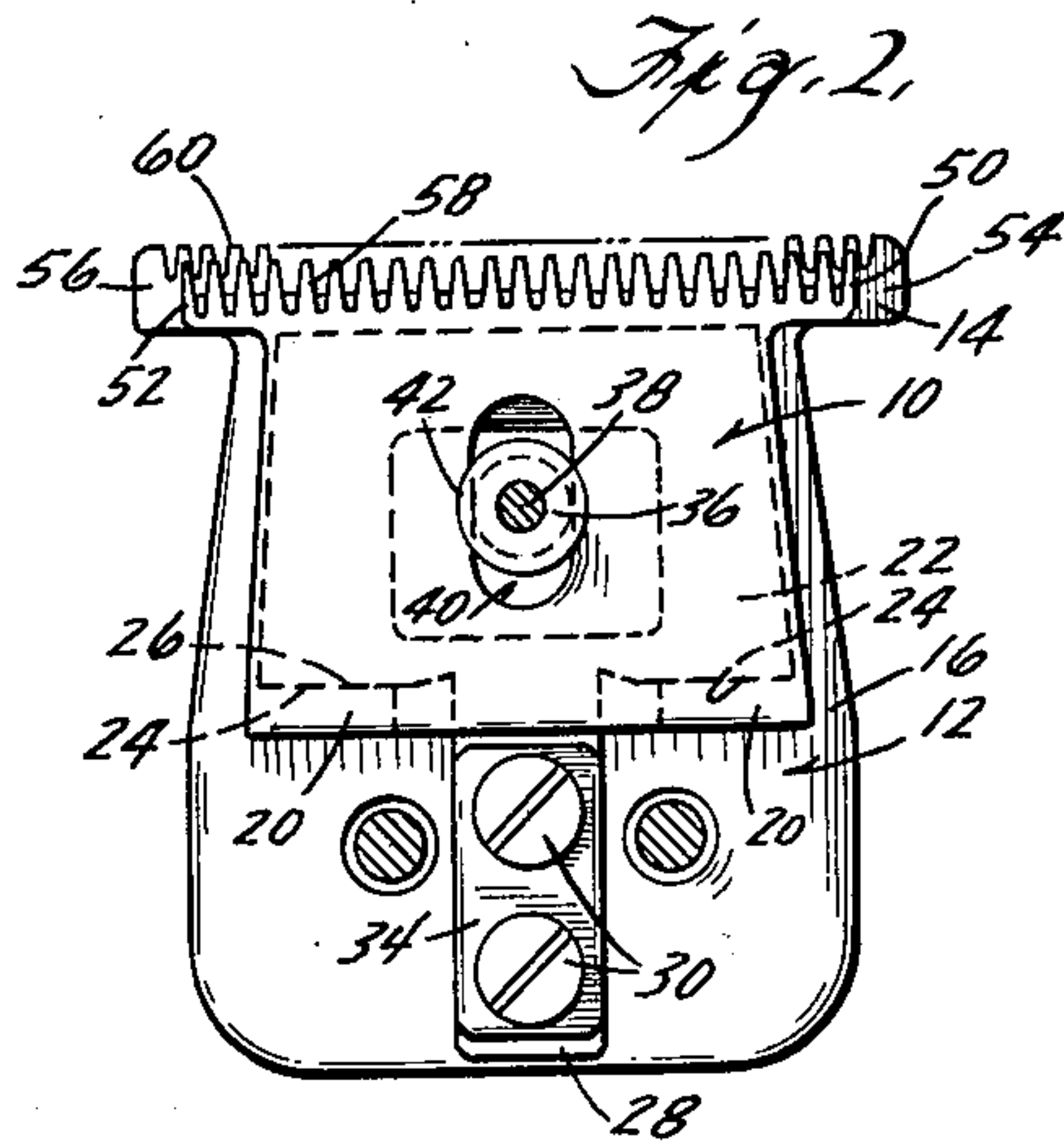
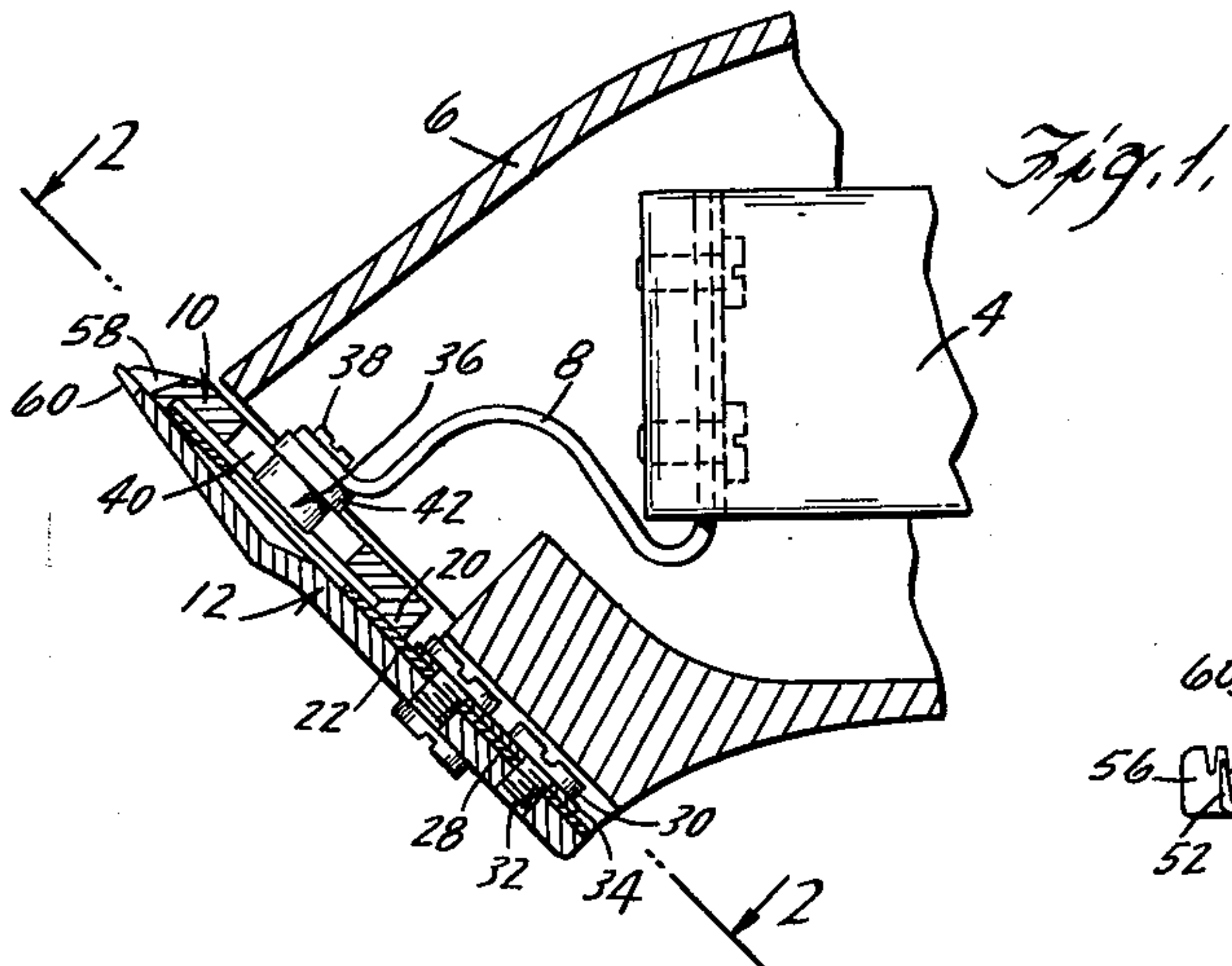


Fig. 3.

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## BLADE ASSEMBLY WITH LATERAL EXTENSIONS

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3 Claims. (Cl. 30—29.5)

This invention relates to a set of hair clipper blades with laterally extending tooth bars.

Vibratory electric hair clippers commonly have blade sets which are generally rectangular with widely separated bearing surfaces which support and guide the movable blade for lateral reciprocation on the fixed blade or shear plate. Without changing the general character of the blade in so far as its bearing surfaces are concerned, the present invention contemplates the provision of laterally extending tooth-carrying bars which comprise narrow lateral tongues projecting from both of the relatively movable blades and upon which the series of teeth of the respective blades are continued clear to the ends of the respective tongues. This results in greatly increasing the length of the series of teeth, and the teeth at both sides of the blade are on very narrow bars which can be introduced into the nostrils or ears to remove superfluous hair. To provide such extensions on an otherwise standard blade set, thereby making the conventional broad or widely spaced bearing surfaces effective to control the movement of the extensions of the respective blades is an objective of the present invention.

In the drawings:

FIG. 1 is a fragmentary view in section taken on the longitudinal center line of a vibratory hair clipper, the casing and the vibratory armature being fragmentarily illustrated to show how the movable blade is actuated and guided.

FIG. 2 is a view taken in section on the line 2—2 of FIG. 1.

FIG. 3 is a view showing in perspective the relatively separated component parts of the blade set.

The clipper is of the general type shown in Patent 2,959,855, issued November 15, 1960. The armature bar 4 is caused to vibrate within casing 6 in any manner, as by a conventional A.C. magnet (not shown). The spring 8 transmits both pressure and motion to the movable blade 10, maintaining the blades in bearing contact and causing blade 10 to reciprocate upon the stationary blade or shear plate 12, with the teeth in shearing contact.

The shear plate has a body portion with a bearing surface at 14 which is usually continuous for the width of the plate and extends onto the teeth 60. It is likewise provided with a bearing surface at 16. The movable blade 10 has a body portion with a bearing surface 18 complementary to the bearing surface 14 and it has laterally spaced thickened bearing pads 20 which bear on the surface 16 of the fixed blade or shear plate 12.

For guiding the movable blade 10 in the course of its reciprocation, I preferably employ a guide insert 22 which has margins 24 engaged with the shoulders 26 of blocks 20. The insert has a rearwardly projecting arm 28 anchored by screws 30 which are threaded into tapped holes 32 of the shear plate, preferably passing through a gasket 34 which is separately illustrated in FIG. 3.

The pressure and motion of the spring 8 connected with armature 4 is transmitted to the movable blade 10 through

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a bushing 36 connected to the end of the spring by screw 38. This bushing may be of nylon or similar synthetic resin. In preferred practice its cylindrical portion is engaged in the slot 40 of the movable blade 10 and its flange 42 engages the blade adjacent the margins of the blade securely to the shear plate.

The present invention contemplates the provision of integral lateral extension bars 50 and 52 on the movable blade 10 and like extension bars 54 and 56 on the fixed blade or shear plate 12. It will be observed that the teeth 58 of the movable blade and the complementary teeth 60 of the shear plate are continuous not only in the usual range across the ends of the respective blades, but for the full length of the extension bars 50, 52, 54, and 56. However, the front to rear dimensions of the respective extensions are narrow as compared with the relatively great dimensions of the blades proper in front to rear directions. The extension bars are narrow enough to be used within the nostrils or ears and yet the respective teeth on the extensions operate with the same accuracy and lack of cramping or undue friction as do the teeth within the normal range of reciprocation of the respective blades, guidance of the relatively reciprocable bars being derived from the bearing surfaces of the blades proper.

I claim:

1. A hair clipper blade set comprising a shear plate, a movable blade, means guiding the movable blade for reciprocation transversely of the shear plate, mutually aligned bars projecting laterally from opposite sides of the shear plate immediately adjacent its forward end, said bars being of limited narrow extent in a direction forwardly and rearwardly of the shear plate, bars projecting oppositely from the forward end of the movable blade and overlying the bars of the shear plate and of correspondingly limited extent in a direction forwardly and rearwardly of the movable blade, said shear plate and movable blade having at their respective forward edges complementary teeth substantially uniformly spaced across the respective forward margins of the shear plate and movable blade and the respective bar extensions thereof, the shear plate and movable blade having complementary bearing surfaces along the bases of said teeth extending rectilinearly from the end of one bar to the end of the other bar, said plate and blade also having complementary bearing surfaces spaced rearwardly from the surfaces first mentioned.

2. A hair clipper blade set comprising a shear plate having a body portion with a transversely extending forward edge, a narrow extension bar projecting laterally from the side of said body portion adjacent said forward edge with its forward edge in substantially rectilinear alignment with said forward edge of said body portion, a series of teeth extending along said forward edges of said body portion and of said extension bar, and a rectilinearly extending bearing surface disposed adjacent to said teeth along said body portion and said extension bar, and a movable blade mounted for transverse reciprocation on said shear plate, said movable blade having a body portion, an extension bar, a series of teeth, and a bearing surface, said extension bar, teeth, and bearing surface of said movable blade being complementary to said extension bar, teeth, and bearing surface of said shear plate.

3. A hair clipper blade set comprising a shear plate



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having a body portion with a transversely extending forward edge, a narrow extension bar projecting laterally from each side of said body portion adjacent said forward edge, each extension bar having its forward edge in substantially rectilinear alignment with said forward edge of said body portion, a series of teeth extending along said forward edges of said body portion and of said extension bars, and a rectilinearly extending bearing surface disposed adjacent to said teeth along said body portion and said extension bars, and a movable blade mounted for transverse reciprocation on said shear plate, said movable

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blade having a body portion, a pair of oppositely projecting extension bars, a series of teeth, and a bearing surface, said extension bars, teeth, and bearing surface of said movable blade being complementary to said extension bars, teeth, and bearing surface of said shear plate.

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