



(57) **Abrégé(suite)/Abstract(continued):**

second pair of opposed surfaces. Still further a method of making a flanged ring includes the step of feeding the elongated straight flange with respect to the device such that a first pair of opposed surfaces compress an elongated protrusion to increase the length of the elongated protrusion and a second pair of opposed surfaces compress an elongated base to increase the length of one portion of the elongated base relative to another portion of the elongated base, wherein the first pair of opposed surfaces and the second pair of opposed surfaces are rotated on axes of rotation that are perpendicular to each other.

ABSTRACT OF THE DISCLOSURE

A device is adapted to form a flanged ring including an elongated curved extension from an elongated straight flange with an elongated base and an elongated protrusion extending from the elongated base. The device comprises a first pair of opposed surfaces adapted to compress an elongated protrusion of a flange to increase a length of the elongated protrusion. The device further includes a second pair of opposed surfaces adapted to compress an elongated base of a flange to increase the length of one portion of the elongated base relative to another portion of the elongated base. The axis of rotation of the first pair of opposed surfaces and the axis of rotation of the second pair of opposed surfaces are disposed perpendicular to each other. A flanged ring is also provided that is formed by process comprising the steps of providing a device including a first pair of opposed surfaces and a second pair of opposed surfaces. Still further a method of making a flanged ring includes the step of feeding the elongated straight flange with respect to the device such that a first pair of opposed surfaces compress an elongated protrusion to increase the length of the elongated protrusion and a second pair of opposed surfaces compress an elongated base to increase the length of one portion of the elongated

FLANGED RING AND DEVICE ADAPTED TO FORM A FLANGED RING AND METHODS

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FIELD OF THE INVENTION

The present invention is directed to flanged rings and devices adapted to
10 form flanged rings and methods. More particularly, flanged rings of the present
invention are adapted for use as a connection element between ducts and duct
couplings in air handling systems.

BACKGROUND OF THE INVENTION

15 Air handling systems used in HVAC applications to control air flow. Such

SUMMARY OF THE INVENTION

Accordingly, it is an object of an aspect of the present invention to obviate problems and shortcomings of conventional devices for forming flanged rings and to provide flanged rings by an improved process.

5 In accordance with one aspect of the present invention, a device is provided that is adapted to form a flanged ring including an elongated curved extension from an elongated straight flange with an elongated base and an elongated protrusion extending from the elongated base. The device comprises:

a) a first pair of opposed surfaces adapted to compress an elongated protrusion of
10 a flange to increase a length of the elongated protrusion;

b) a second pair of opposed surfaces adapted to compress an elong

of the drawing in which:

FIG. 1 is a front elevational view of a conventional device for forming a flanged ring;

FIG. 2 is a sectional view of the device of FIG. 1, along line 2-2 of FIG. 1;

FIG. 3 is a top plan view of the device of FIG. 1;

5 FIG. 4 is a top plan view of a conventional elongated straight flange;

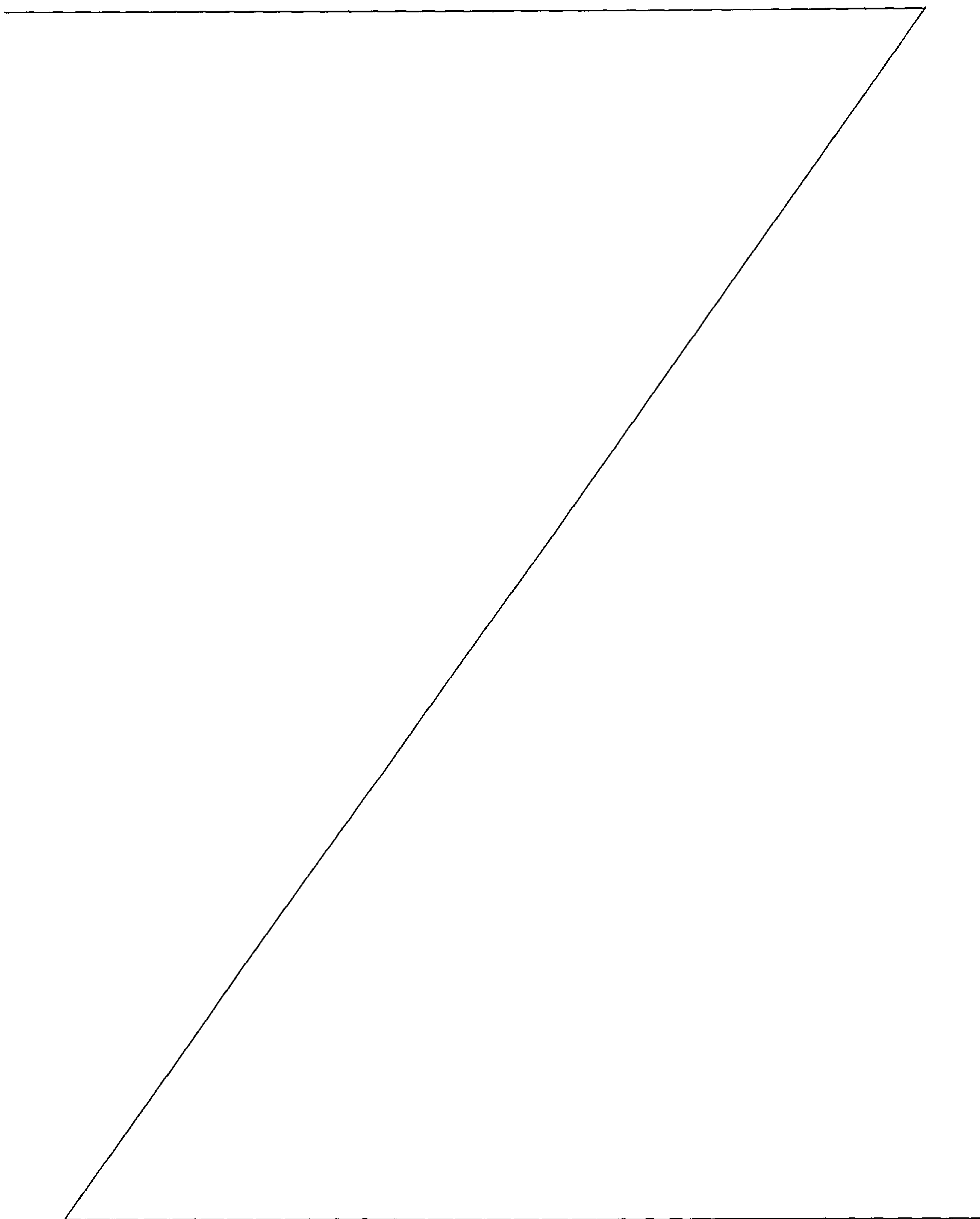


FIG. 5 is a sectional view of the elongated straight flange along line 5-5 of FIG. 4;

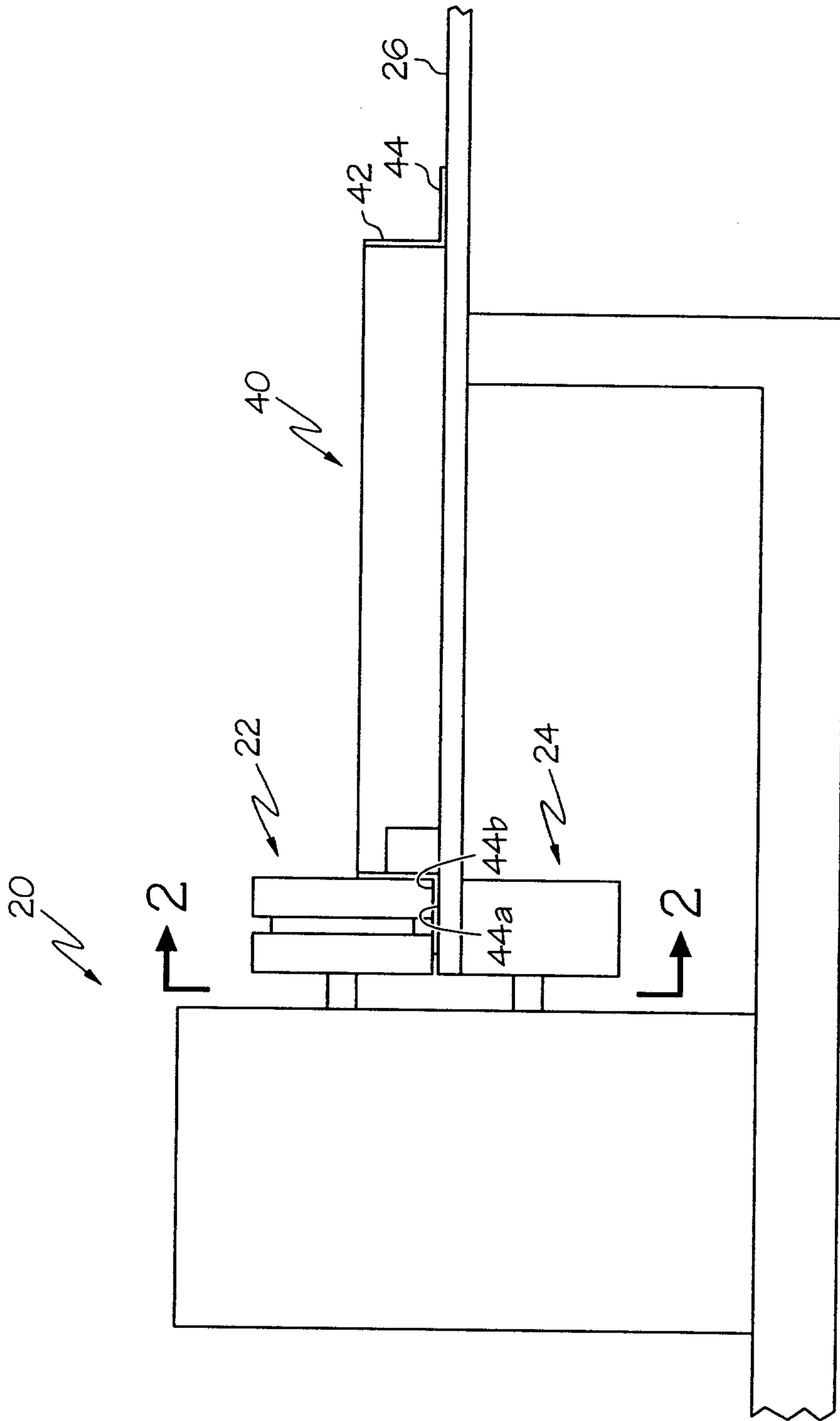
FIG. 6 is a front elevational view of a device for forming a flanged ring in accordance with one exemplary embodiment of the present invention;

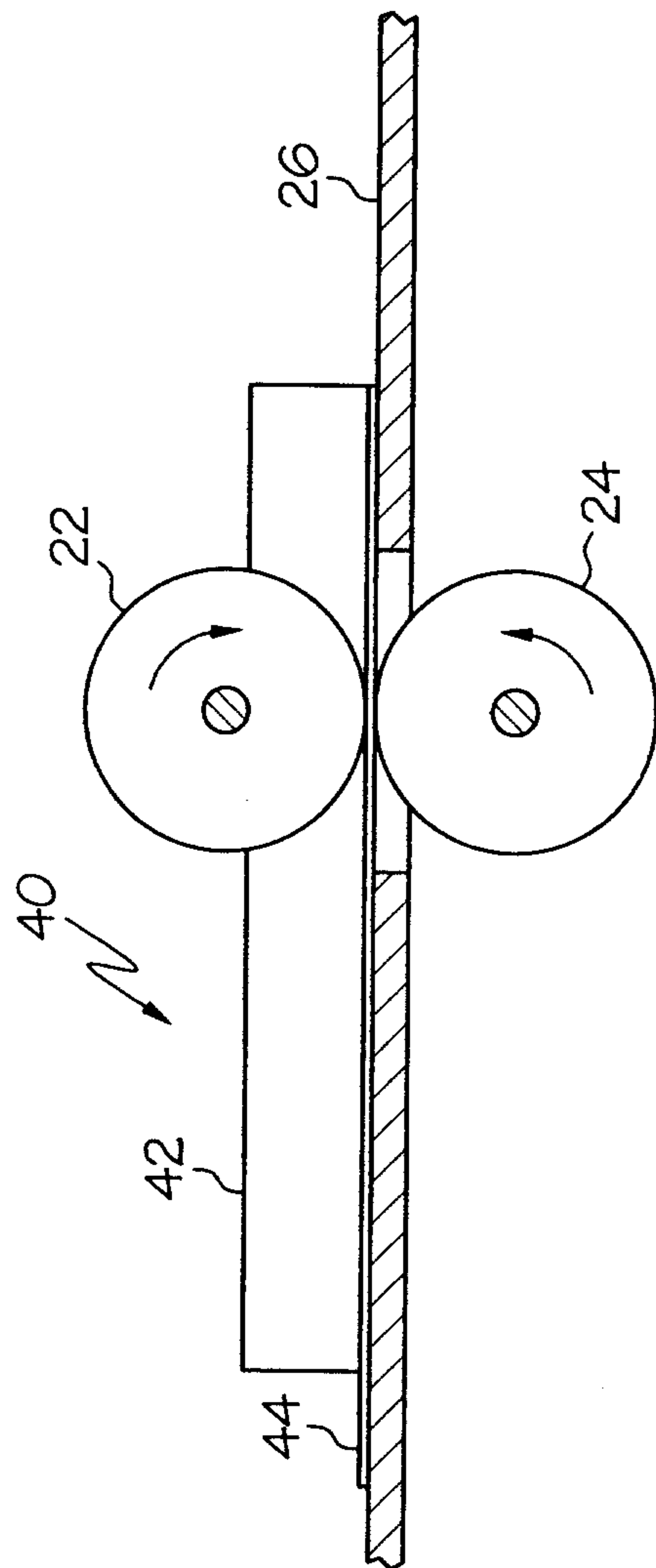
5 FIG. 7A is a sectional view of the device along line 7A-7A of FIG. 6;

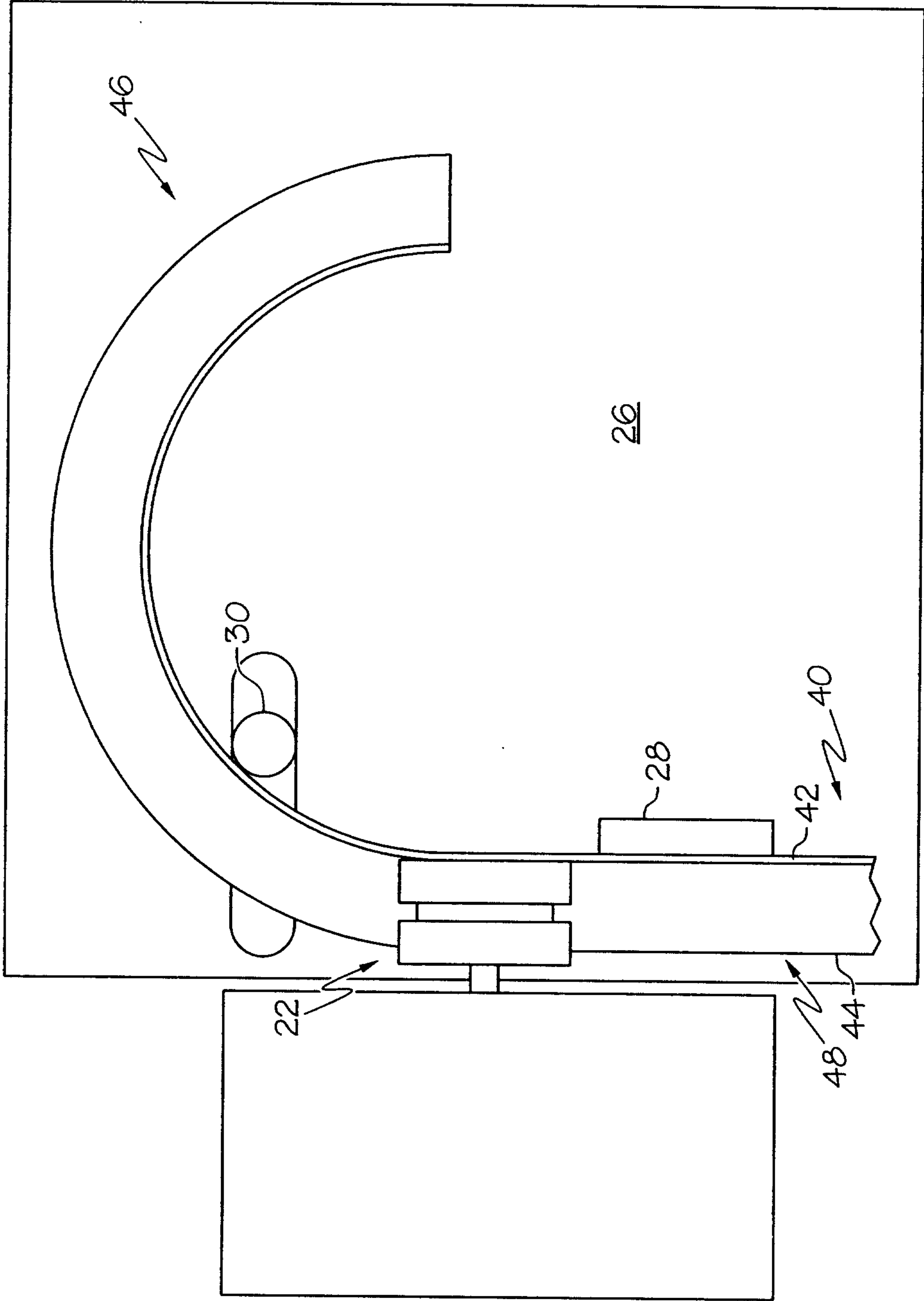
FIG. 7B is a sectional view of the device along line 7A-7A wherein the J-shaped flange portion has been removed for clarity;

FIG. 8 is a sectional view of the device along line 8-8 of FIG. 7A;

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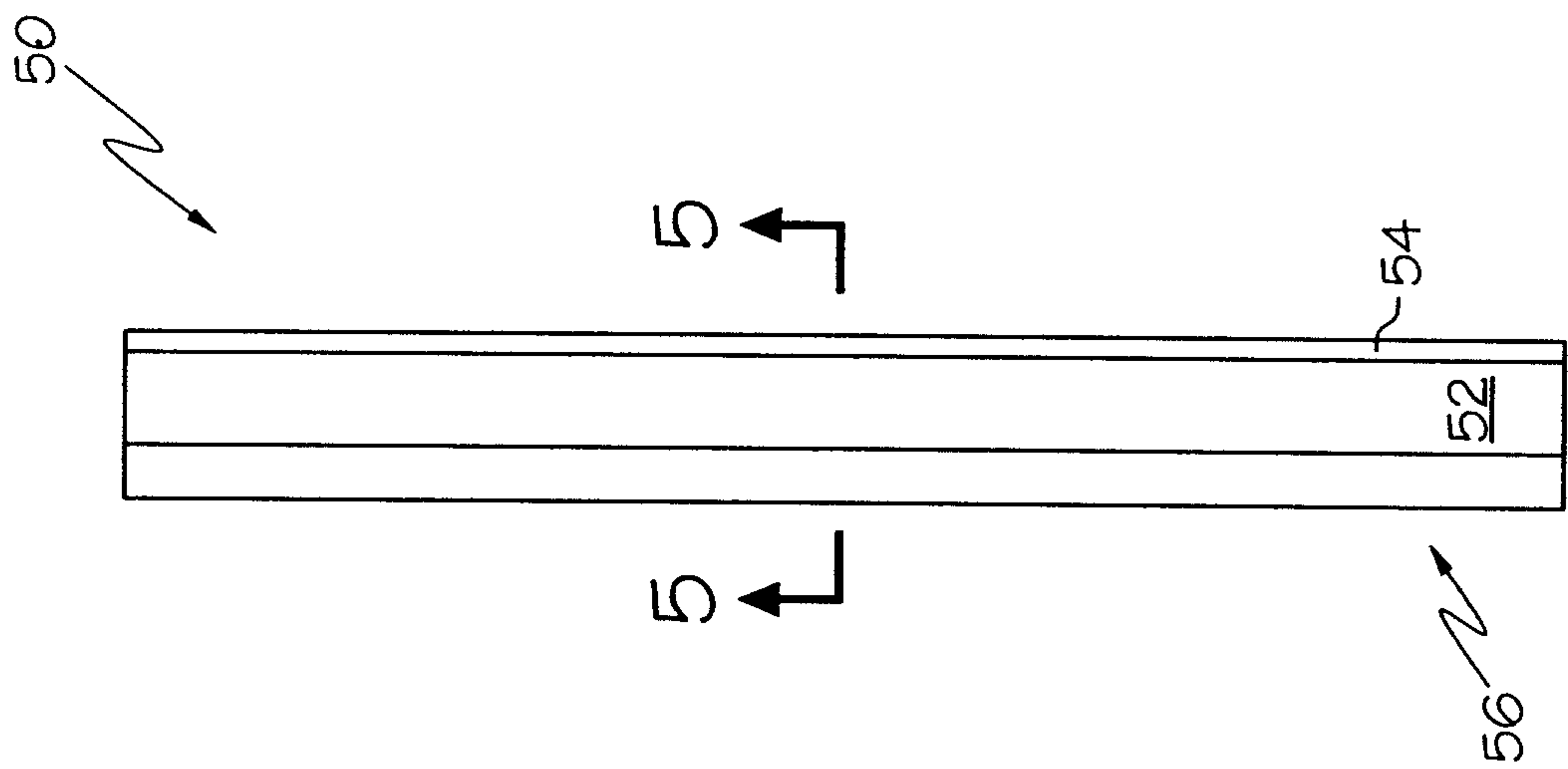


FIG. 4
(PRIOR ART)

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