Nov. 5, 1929. H. A. TEDMAN 1,734,541

PROCESS OF MAKING FANS

Filed March 12, 1925

Fig. 1

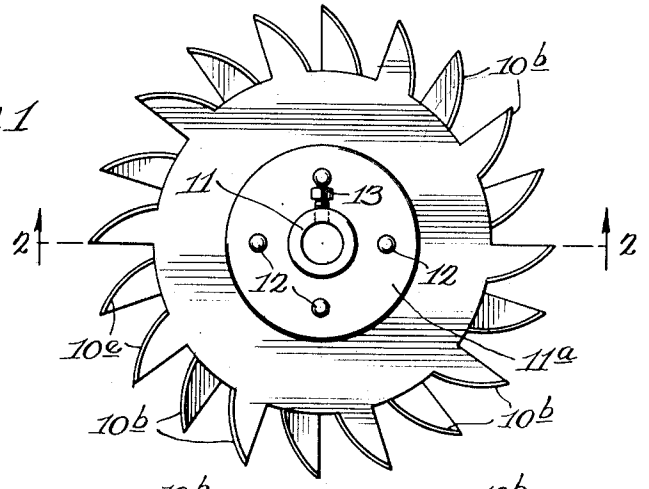


Fig. 2

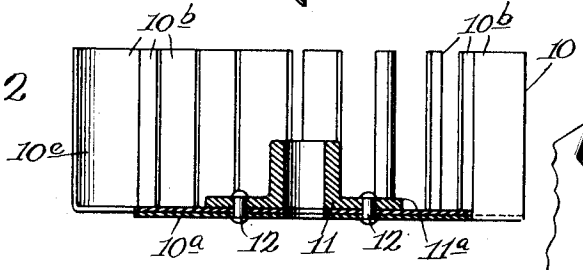


Fig. 4

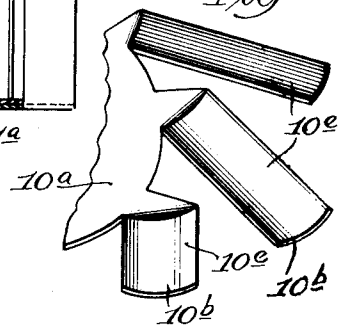


Fig. 3

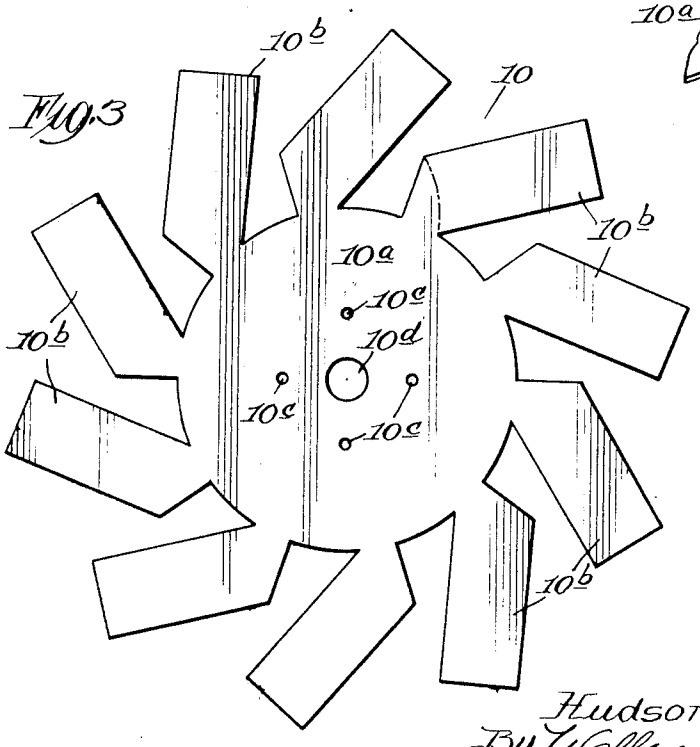
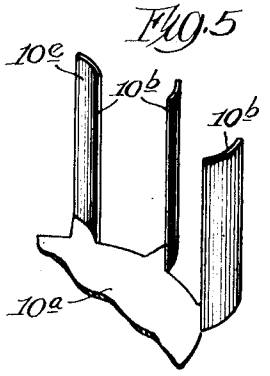


Fig. 5



Inventor:
Hudson A. Tedman
By Wallace R. Lane. Atty.

Patented Nov. 5, 1929 1,734,541

UNITED STATES PATENT OFFICE

HUDSON A. TEDMAN, OF GALESBURG, ILLINOIS, ASSIGNOR TO WINSLOW BOILER & ENGINEERING CO., OF GALESBURG, ILLINOIS, A CORPORATION OF ILLINOIS

PROCESS OF MAKING FANS

Application filed March 12, 1925. Serial No. 14,896.

This invention relates to improvements in fans, and has for its object to provide a fan member as a new article of manufacture, and a new and improved fan embodying such member as an element thereof.

These and other objects are more fully described in the following specification and shown in the accompanying drawing, in which—

Figure 1 is an end elevation of a complete fan embodying my invention.

Figure 2 is a horizontal section along the line 2—2 of Figure 1.

Figure 3 is a partially formed blank.

Figure 4 is a detail of one of the fan members in the process of manufacture.

Figure 5 is a similar detail after completion of the fan member.

10 indicates generally a blank stamped or cut from sheet steel preferably and comprising a body portion 10^a, and outwardly extending vane portions 10^b, the body portion being apertured as indicated at 10^c for securing means and at 10^d to accommodate a driving shaft.

After formation of the blank in the form shown in Figure 3 the blades 10^b are curved as indicated by numeral 10^e, and thereafter the blades are bent to final position as illustrated in Figure 5, being therein located at right angles to the body portion 10^a and inclined with respect to the radii of such body portion.

In assemblying the completed fan a pair of finished vane members are arranged with their body portions in contact, and their vanes in alternating relation, as shown in Figure 1. A hub member 11 having the apertured flange 11^a is riveted to the interior of the fan by rivets 12 extending through the apertures 10^c. A set screw 13 is provided to secure the hub of the fan to a drive shaft not shown.

By thus forming and assemblying my fan members I have been able to greatly reduce the weight and increase the strength over present day devices of similar character, as well as to reduce the cost thereof.

It will be apparent that my invention is susceptible of modification and improvement, and I do not wish to be restricted to the form shown and described, except as defined in the appended claims.

What I claim is:

1. A process of making fans, comprising stamping a blank sheet material to provide a body portion and outwardly extending vane portions, curving the body of said vane portions and bending said vane portions into angular relation with respect to said body portion.

2. In the method of making fans, the steps of stamping a blank with a body portion and outwardly extending vane portions, transversely curving the vane portions, bending the vane portions entirely across their width at an angle to the body portion.

3. In the method of making fans, the steps of stamping a blank with a body portion and outwardly extending vane portions, curving the body portions of said vane portions, bending the vane portions on a curve extending entirely across the width of the vane.

4. In the method of making fans, the steps of stamping a blank with a body portion and outwardly extending vane portions, laterally curving the vane portions, and bending the entire curved vane portions at an angle to the body portion.

5. The process of making fans comprising stamping blanks from sheet metal to form central body portions and outwardly extending vanes, curving the vanes throughout the lengths thereof, bending the vanes laterally of the body portion, and then securing one of said blanks to another of said blanks with the vanes of one blank alternating with the vanes of one other blank and extending in the same direction.

6. The process of making fans which comprises stamping a flat sheet metal blank having a web and spaced outwardly extending wings integral therewith, curving the wings for the entire lengths thereof, bending the entire wing substantially at right angles to the plane of the web and at an angle to the circumferential plane of the fan.

7. The process of making fans which comprises stamping a flat sheet metal blank to form a web and spaced outwardly extending

wings integral therewith, bending the entire wing on a curved line and in such a manner as to cause the entire wing to extend substantially perpendicularly to the web.

8. The process of making fans comprising stamping a flat sheet metal blank to form a web and spaced outwardly extending integral wings, curving the entire wing and bending it transversely to the web to form a vane.

9. The process of making fans, comprising stamping a blank from sheet material to provide a body portion with outwardly extending integral wings, and bending the wing close to the web across its entire width into a position substantially perpendicular to the web.

10. The process of making fans comprising stamping a blank from sheet metal to provide a body portion with outwardly extending integral wings, laterally curving the wings throughout the lengths thereof and bending them entirely across their width close to the web to form perpendicular vanes.

11. The process of making fans which comprises stamping a flat sheet of metal to form a web and outstanding wings having parallel sides joined to the web by a narrow neck one side of which is radial to the web, and thereafter bending the wing on a line intersecting the web and the radial line to provide a substantially perpendicular wing.

12. The process of making fans which comprises stamping a flat sheet of metal to form a web and outstanding wings having outer portions joined to the web by a portion one side of which is radial to the web, and thereafter bending the wing on a line intersecting the web and the radial line to provide a substantially perpendicular wing.

13. The process of making fans which comprises stamping a flat sheet of metal to form a circular web and outstanding wings having parallel sides joined to the web by a side radial to the web and bending the wing on a curved line intersecting the radial side and the web to curve the wing and form it perpendicular to the web.

In witness whereof I hereunto subscribe my name to this specification.

HUDSON A. TEDMAN.