

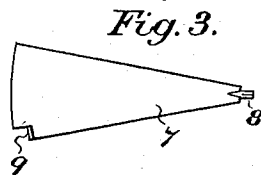
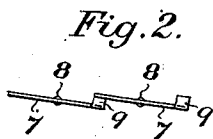
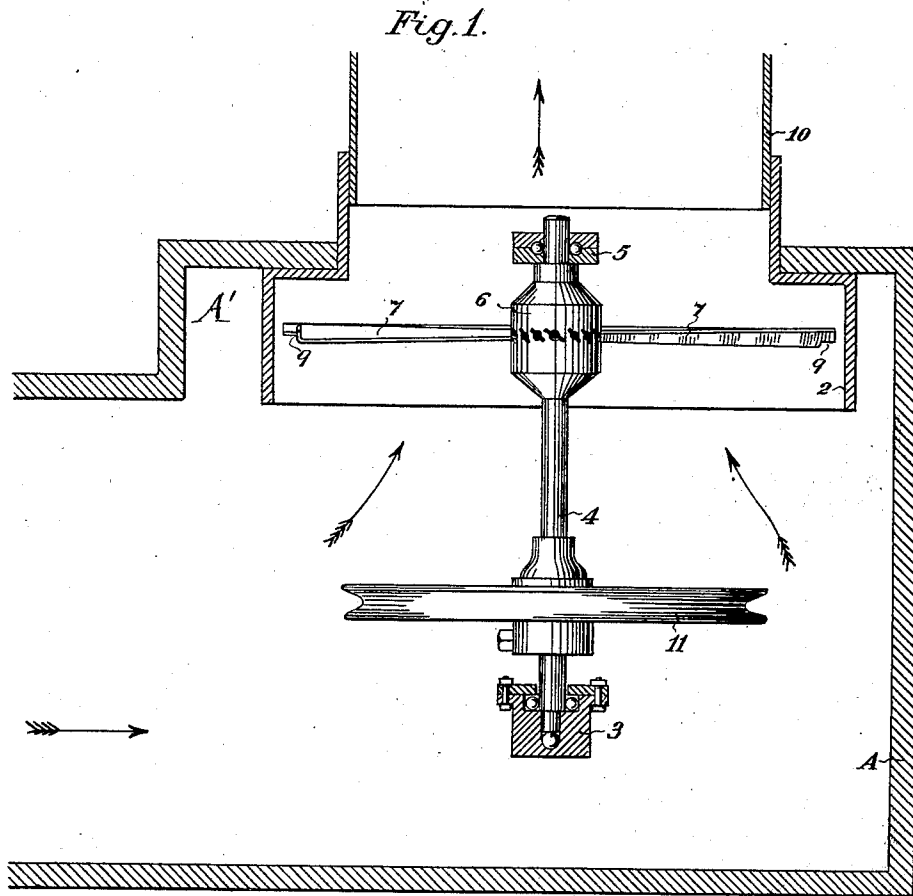
No. 661,724.

Patented Nov. 13, 1900.

H. J., E. J. & B. C. NEWMARKER.
AIR DRAFT PROPELLING APPARATUS.

(Application filed June 14, 1900.)

(No Model.)



Witnesses,
E. A. Brandau,
J. A. House

Inventors,
Henry J. Newmarker,
Edward J. Newmarker,
By Benjamin C. Newmarker,
Dewey Strong & Co. Attys.

UNITED STATES PATENT OFFICE.

HENRY J. NEWMARKER, EDWARD J. NEWMARKER, AND BENJAMIN C. NEWMARKER, OF RENO, NEVADA.

AIR-DRAFT PROPELLING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 661,724, dated November 13, 1900.

Application filed June 14, 1900. Serial No. 20,380. (No model.)

To all whom it may concern:

Be it known that we, HENRY J. NEWMARKER, EDWARD J. NEWMARKER, and BENJAMIN C. NEWMARKER, citizens of the United States, residing at Reno, county of Washoe, State of Nevada, have invented an Improvement in Air-Draft Propelling Apparatus; and we hereby declare the following to be a full, clear, and exact description of the same.

Our invention relates to an apparatus which is designed to produce a rotary motion and power by means of a suitably-journaled propeller-wheel and an apparatus connected therewith by which a current of air is caused to pass through the wheel and cause it to rotate.

It consists of the parts and the constructions and combinations of parts hereinafter described and claimed.

Figure 1 is a section of our apparatus. Fig. 2 is an edge view of the propeller-blades. Fig. 3 is a plan of one of the blades.

A is a chamber of any suitable construction, here shown as having a cylindrical casing 2, fixed in an enlarged or recessed portion A' in the upper part, so that the lower portion of the casing does not project into the air-passage to interrupt or obstruct the direct passage of air therethrough. This chamber is closed upon all sides except one, which is open for the admission of air and which may have a tunnel or extension connecting with this open side. Within the chamber is fixed in any well-known manner a support 3, in which is fitted a step, with any suitable or well-known antifrictional bearing, and in this bearing the lower end of the journal-shaft 4 is fitted to turn. The upper end of the shaft is fitted to turn in a like suitable bearing in the bar 5, which extends transversely across above the casing 2. The journaled shaft 4 has upon its upper end an enlarged hub 6, within which are fitted the inner ends of the inclined overlapping propeller-blades 7. The inner ends of these blades, which are here shown as made of thin sheet metal, have the inner ends provided with shanks 8, of tubular cylindrical form, which fit into correspondingly-shaped radial sockets in the hub, and the edges of the blades adjacent to these tubular shanks 8 are fitted into inclined slots

which are made in the hub, as shown. The outer ends of the blades are curved and fit in close proximity with the interior of the casing without contact therewith. At the points where the blades overlap a tongue 9 is cut along the edge of each and turned upwardly to connect with the overlapping portion of the next contiguous blade, thus forming channels between the blades, through which air supplied from below is allowed to pass. Above the casing 2 the opening is made of smaller diameter, and a flue or chimney 10 is closely fitted to the flange 9 of said opening, extending upwardly therefrom to any desired height.

The size of the parts herein described depend upon the amount of power to be developed, and by the construction here shown a constant and powerful draft of air passes up through the casing and the flue and passing through the inclined blades of the wheel the latter is caused to rotate continuously.

Upon the wheel-shaft is fixed a pulley or other contrivance 11, through which power derived from the rotation of the wheel-shaft may be transmitted to drive any desired apparatus to which motion and power are to be communicated.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of a horizontal chamber closed on all sides except one, a separate casing fixed in the upper rear portion of the chamber and having two portions of unequal diameter one of which, the larger, lies within the chamber while the other, the smaller, extends therefrom, a flue or chimney forming a continuation of the smaller portion of the casing, bearings in the chamber and casing and arranged axially in line, a shaft journaled in said bearings, a wheel having a hub within the larger portion of the casing, provided with sockets with slot extensions on opposite sides, and inclined overlapping radial vanes, said vanes having inner ends fitting said slots and provided with shanks to fit said sockets, the outer ends of said vanes being provided with upturned tongues by which their contiguous edges are connected together in overlapping planes, and a pulley on said shaft.

2. The combination of a horizontal chamber closed on all sides except one, and having an enlarged or recessed portion, a casing within said enlarged or recessed portion of the chamber and having a reduced extension from its upper side, a flue connecting with said extension, and a wheel journaled within the larger portion of the casing.

In witness whereof we have hereunto set our hands.

H. J. NEWMARKER.
E. J. NEWMARKER.
B. C. NEWMARKER.

Witnesses:

O. C. ROSS,
F. M. PAYNE.