

E. IMLE.
STEAM TURBINE BLADE.
APPLICATION FILED NOV. 7, 1912.

1,072,233.

Patented Sept. 2, 1913.

Fig. 1.

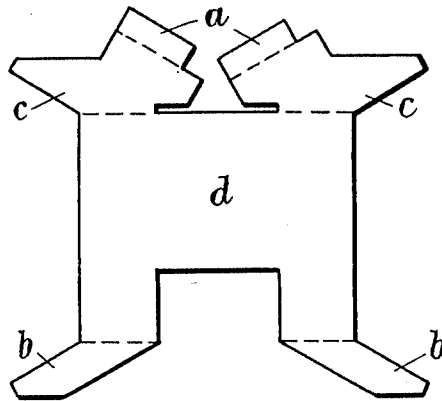


Fig. 2.

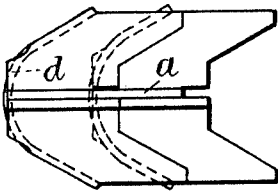
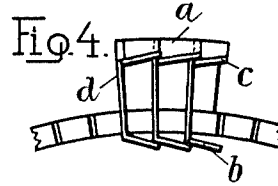


Fig. 3.

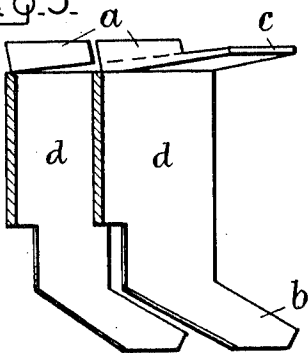
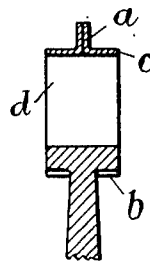


Fig. 5.



WITNESSES:

Otto Frankmeier
Joh. Hofmann

INVENTOR:

Emil Imle

UNITED STATES PATENT OFFICE.

EMIL IMLE, OF DRESDEN, GERMANY.

STEAM-TURBINE BLADE.

1,072,233.

Specification of Letters Patent.

Patented Sept. 2, 1913.

Application filed November 7, 1912. Serial No. 730,115.

To all whom it may concern:

Be it known that I, EMIL IMLE, a subject of the Emperor of Germany, residing at Dresden, Germany, have invented certain
5 new and useful Improvements in Steam-Turbine Blades, of which the following is a specification.

The present invention relates to improvements in steam turbine blades and its main
10 object is to provide a blade formed of one piece of metal bent in such a manner that the single blades receive the desired form adapting them for use with steam turbines in such a manner that the single blades form
15 a crown ring.

Another object of the invention is to provide blades for steam turbines having their upper edges connected by soldering, etc., so as to form a stiffening rib.

20 In the accompanying drawing: Figure 1 shows in elevation a blank for forming the blade according to the present invention. Fig. 2 is a top plan view of the blade before its introduction into the turbine wheel. Fig.
25 3 is a longitudinal section thereof. Fig. 4 shows part of a turbine wheel with three of the blades in position thereon. Fig. 5 is a central section through one of the blades in position upon a turbine wheel.

30 The blades *d* are formed from a metal blank by stamping the metal between suitable dies so as to form a blade showing flanges *b* and *c*. The flanges *c* are then bent by means of suitable tools so as to receive the

form of a turbine blade. The adjoining
35 blades upon a wheel form a closed ring or crown. The flanges *c* are provided with flaps *a* which are connected in any well known suitable manner as for instance by
40 soldering so as to form a stiffening rib (see Fig. 5), one flap on each blade overlapping a flap on the adjacent blade. The flanges *b* are introduced into suitable slots of the turbine wheel and bent suitably and connected
45 by solder or by any other well known manner with its bent portions so as to form a stiffening rib.

I claim:

1. A blade for steam turbines comprising a body portion, head flanges upon said body
50 portion provided with flaps, and bottom flanges adapted to be secured in slots of the turbine wheel, substantially as described.

2. A blade for steam turbines comprising
55 in combination a body portion, flanges at the top of said body portion provided with flaps adapted to be connected so as to form a crown ring and flanges at the bottom part of said body adapted to be guided through
60 slots of the turbine wheel and inseparably connected with each other for forming a stiffening rib, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

EMIL IMLE.

Witnesses:

PAUL ARRAS,
OTTO BLAURMESTY.