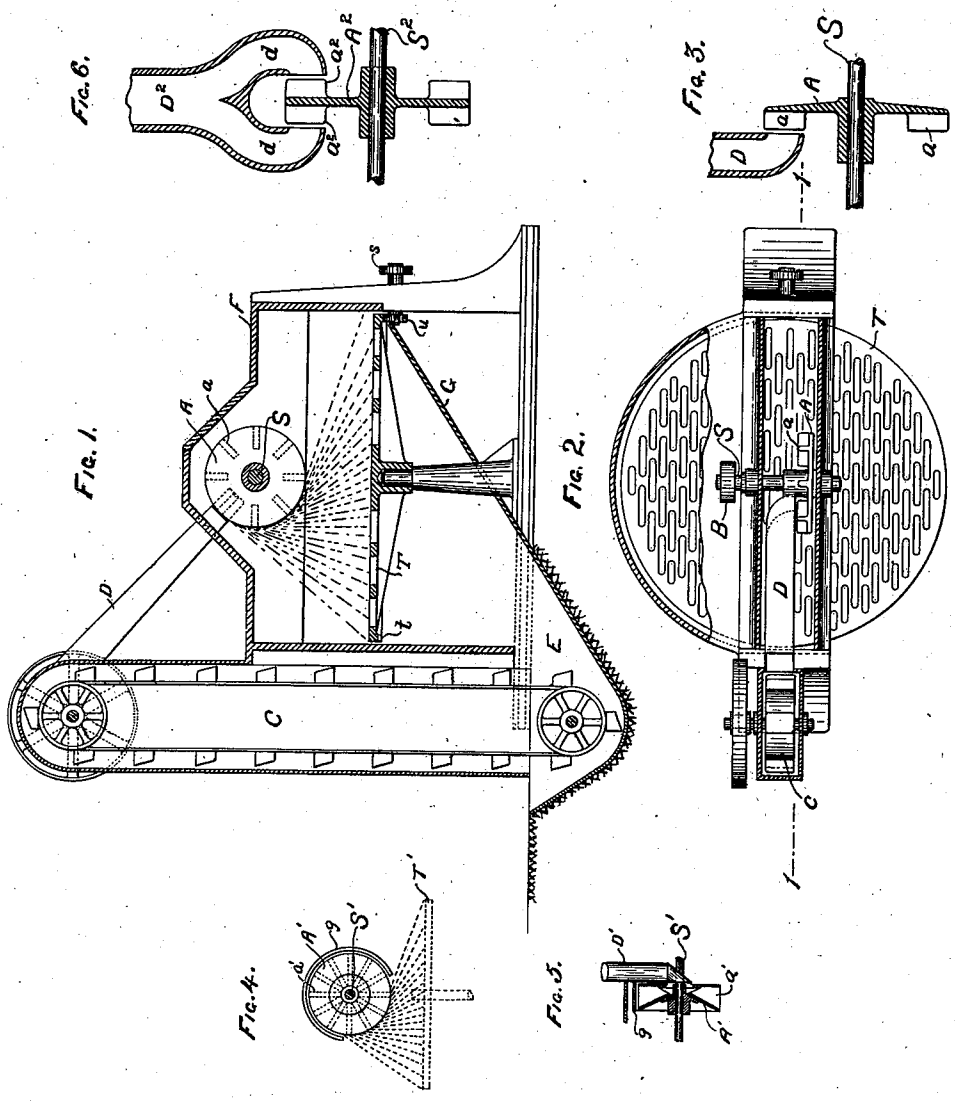
(No Model.)

H. BEEG.

MACHINE FOR CLEANING CASTINGS.

No. 554,473. Patented Feb. 11, 1896.



WITNESSES:
Wm. J. Donnelly.
Eugenie A. Reider.

Hans Beeg. INVENTOR

BY
A. Faber du Faur Jr.
ATTORNEY

UNITED STATES PATENT OFFICE.

HANS BEEG, OF DURLACH, GERMANY.

MACHINE FOR CLEANING CASTINGS.

SPECIFICATION forming part of Letters Patent No. 554,473, dated February 11, 1896.

Application filed June 20, 1895. Serial No. 553,397. (No model.) Patented in Germany January 7, 1893, No. 71,824.

To all whom it may concern:

Be it known that I, HANS BEEG, a subject of the Emperor of Germany, and a resident of Durlach, in the Grand Duchy of Baden, Germany, have invented new and useful Improvements in Machines for Cleaning Castings, (for which I have obtained Letters Patent in Germany, No. 71,824, dated January 7, 1893,) of which the following is a specification.

My invention has reference to a sand-blast apparatus of that class in which the sand is thrown against the casting or other object to be cleaned by a rotating wheel or projector and the usual air-blast dispensed with.

It consists essentially in combining, in a sand-blast apparatus, a projector provided with radial blades and mounted to rotate in a vertical plane, a support for the castings disposed to rotate in a horizontal plane, and a feed for conveying the sand to the projector.

The nature of my said invention will best be understood when described in connection with the accompanying drawings, in which—

Figure 1 represents a vertical section on the line 1 1, Fig. 2, of an apparatus embodying my invention. Fig. 2 is a sectional plan view of the same. Fig. 3 is a vertical section, on an enlarged scale, taken through the projector and chute. Figs. 4 and 5 illustrate a modified form for the projector. Fig. 6 is a sectional elevation illustrating a projector provided with blades on both sides.

Similar letters of reference designate corresponding parts throughout the several views of the drawings.

Referring at present to Figs. 1, 2, and 3 of the drawings, the letter A designates the projector, which is mounted on a horizontal shaft S and has a high speed of rotation imparted thereto through the pulley B mounted on said shaft. This projector consists of a circular disk having on one face thereof a series of radial blades *a* adapted to receive and distribute the sand in a vertical plane. Beneath the projector is arranged a work-support T made in the form of a turn-table mounted to turn in a horizontal plane. In the present example I have shown the work-support provided with a circular rack *t* into which meshes a gear *u* mounted on a horizontal shaft provided with a driving pulley or gear *s*. The work-support is perforated to permit the passage therethrough of the sand discharged from the projector. Of course it is to be understood that any other suitable rotary work-support may be substituted for that shown.

C is an elevator which carries the sand or other cleaning material from the pit E to the inclined chute D. The discharge end of the chute is turned laterally to direct the sand upon and between the blades of the propeller A. The apparatus is partially inclosed by stationary casing F, while beneath the work-support a suitable funnel or conduit G is arranged for returning the sand to the pit.

In Fig. 6 I have shown the projector A^2 provided with radial blades a^2, arranged on both its faces, and the chute D^2 provided with two discharge-openings or branches *d* for conveying the sand to the projector.

In Figs. 4 and 5 I have shown the projector provided with a central inlet-opening for the sand conducted thereto by the conduit D′ and with a series of radial blades inclosed by circular heads. The projector is partly surrounded by a curved casing *g* to effect the projection of the sand in the direction indicated by dotted lines in Fig. 4.

It is evident that the several devices for feeding the sand or other cleaning material to the projector, for holding the castings, and for imparting motion to the several operating devices may be modified in many ways. Therefore I do not wish to restrict myself to the precise construction shown, the main features of my invention being the vertical projector provided with lateral blades for directing the cleaning material against the castings and a rotary support for the castings arranged in a horizontal plane.

What I claim as new is—

1. In an apparatus for cleaning castings, the combination of a support for the castings rotating in a horizontal plane, a rotary projector mounted to rotate in a vertical plane, and provided with lateral blades, and a feed for conveying the sand to the projector, substantially as described.

2. In an apparatus for cleaning castings, the combination of a perforated support for the castings mounted to rotate in a horizontal plane, a rotary projector mounted in a vertical plane and provided with radial lat-

eral blades, a conduit for sand opening laterally to the projector, and means for conveying sand to the conduit, substantially as described.

3. In an apparatus for cleaning castings, the combination of a perforated support for the castings mounted to rotate in a horizontal plane, a rotary projector mounted in a vertical plane and provided with radial lateral blades, a conduit discharging into the projector, a sand-pit, an elevator for lifting the sand from the pit to the conduit, and a funnel or conduit located beneath the support for conducting the sand to the pit, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HANS BEEG.

Witnesses:
EUGEN KAUFMANN,
FRIEDRICH CORRELL.