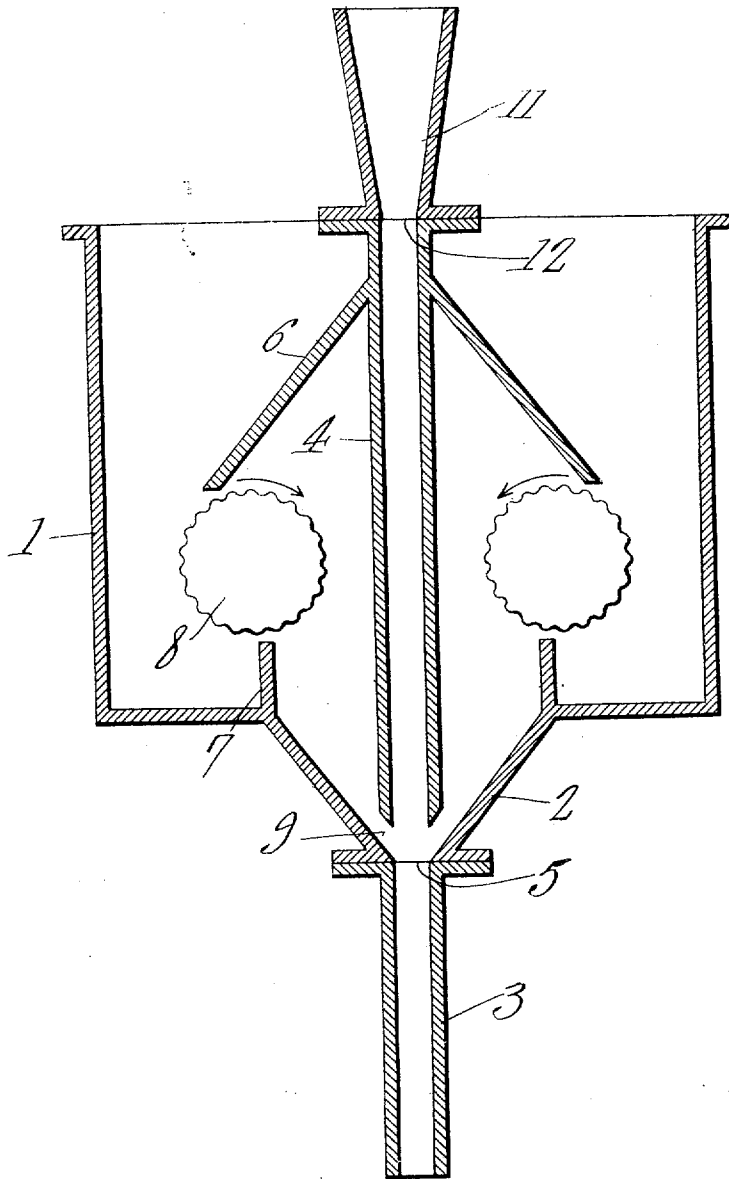


A. JORN, JR.
SAND BLAST DEVICE.
APPLICATION FILED AUG. 17, 1910.

977,453.

Patented Dec. 6, 1910.



Witnesses

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UNITED STATES PATENT OFFICE.

ALBERT JORN, JR., OF WAUKEGAN, ILLINOIS.

SAND-BLAST DEVICE.

977,453.

Specification of Letters Patent.

Patented Dec. 6, 1910.

Application filed August 17, 1910. Serial No. 577,670.

To all whom it may concern:

Be it known that I, ALBERT JORN, Jr., a citizen of the United States, residing at Waukegan, in the county of Lake and State of Illinois, have invented a new and useful Sand-Blast Device, of which the following is a specification.

This invention relates to machines for producing sand blasts and is more particularly designed as an improvement of the structure disclosed in Patent No. 894,272, issued to me on July 28, 1908.

One of the objects of the invention is to provide improved means for feeding the sand to the air blast, a novel arrangement of deflectors being utilized for properly guiding the sand.

With the foregoing and other objects in view the invention consists of certain novel details of construction and combination of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawing, which is a section through the machine the preferred form of the invention has been shown.

Referring to the drawing by characters of reference, 1 designates a casing having an outlet 5 arranged centrally upon the bottom thereof and opening into a nozzle 3 extending downwardly therefrom. Extending longitudinally through the center of top of casing 1 is an opening 12, the sides of which are two downwardly-directed parallel walls, extending close to the outlet 5, forming an air passage way 4, and this opening receives the air-pipe 11 coming from a suitable source of air-pressure. Downwardly diverging deflectors 6 extend from the upper portion of the walls of the air passage way 4 and toward opposite walls of the casing 1 and upwardly extending deflectors 7 project from the bottom of the casing at opposite sides of the air passage way, each of the deflectors 7 being located below one of the grooved rollers 8 and the space between the deflectors 6 and 7 being practically closed by means of the grooved rollers 8 which are adapted to be rotated in the direction of the arrow by any suitable mechanism not shown. The outer walls of the casing 1 are made to approach their lower ends into close relation with the ends of the walls of the air passage way 4, thus forming beneath each end of the walls of air passage way 4, a throat 9, which throats constitute sand outlets.

In using the machine sand gravitates into the casing 1 and above the deflectors 6, from a sand hopper above the casing, (said hopper not shown) and is directed by these deflectors toward opposite sides of the casing 1 and back of the rollers 8 and the deflectors 7. When the rollers are rotated in opposite directions, the grooves therein carry the sand under the deflectors 6 and drop it through the throats 9. As soon as the sand passes through these throats it mixes at 5 with the blast of air passing downwardly through the air passage way 4 and is forced by this blast into and through the nozzle 3. By arranging the deflectors and rollers in the manner described and shown, the sand passes positively through the throats 9 and there is no danger of the air backing under pressure into the supply of sand contained within the casing and beyond the deflectors 6 and 7.

It will be seen that the machine is very simple in construction, will not readily get out of order, and constitutes very efficient means for producing a blast of sand and air.

Various changes can of course be made in the construction and arrangement of the parts without departing from the spirit or sacrificing any of the advantages of the invention as defined in the appended claims.

What is claimed is:—

1. A sand blast machine including a casing having a nozzle, an air passage way alining with and spaced from the nozzle to form a sand outlet opening into the nozzle from the casing, and revoluble means for directing sand from the casing to the sand outlet.

2. A sand blast machine including a casing, an air passage way constructed therein, a nozzle alining with the air passage way and spaced therefrom to form a sand outlet within the casing, revoluble means for supplying sand to said sand outlet, and means for directing sand to said revoluble means.

3. A sand blast machine including a casing, a nozzle extending therefrom, an air passage way alining with the nozzle and spaced from the bottom of the casing, revoluble means for directing sand from the casing and into the nozzle, and deflecting means for directing sand against said revoluble means.

4. A sand blast machine including a casing having an outlet, an air passage way in

alinement with the outlet for directing air under pressure into and through the outlet, sand feed rollers mounted for rotation within the casing and outside of the passageway
5 to direct sand into the outlet, and deflecting means adjacent the rollers.

5. A sand blast machine including a casing having the bottom portion provided with an outlet, an air passage way within
10 the casing and arranged to direct air into the outlet, downwardly diverging deflectors at opposite sides of the air passage way and within the casing, upstanding deflectors

upon the bottom of the casing, said deflectors being located below but spaced from 15 the downwardly diverging deflectors, and revoluble grooved feed rollers interposed between the deflectors at each side of the air passage way for directing sand to the outlet.

In testimony that I claim the foregoing as 20 my own, I have hereto affixed my signature in the presence of two witnesses.

ALBERT JORN, JR.

Witnesses:

N. BROADBEAR,
N. WATERS.