A. E. ROEVER.

VACUUM NOZZLE FOR SIFTING ASHES.

APPLICATION FILED MAY 27, 1920.

1,355,507.

Patented Oct. 12, 1920.

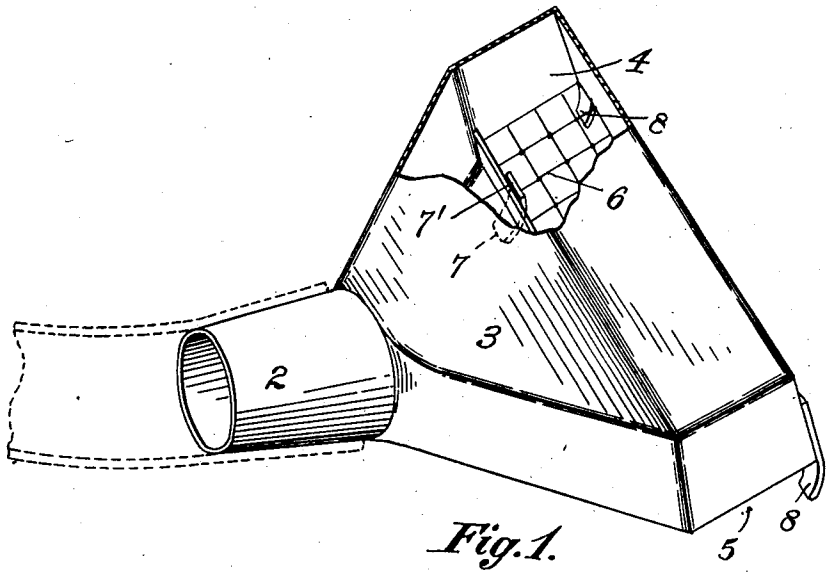


Fig. 1.

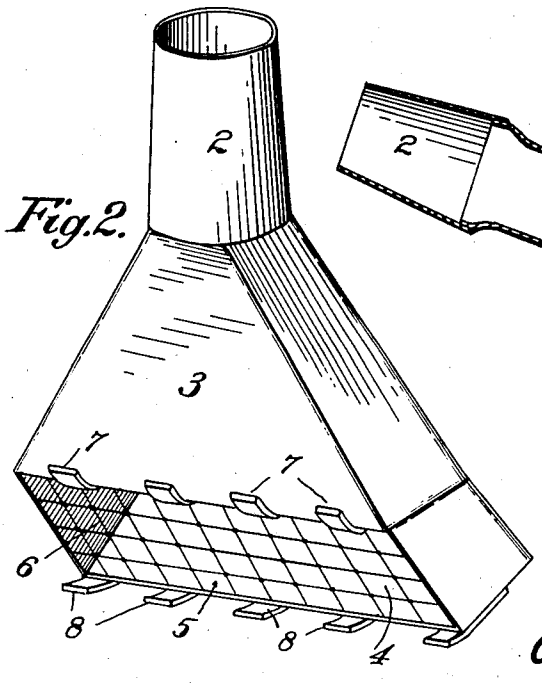


Fig. 2.

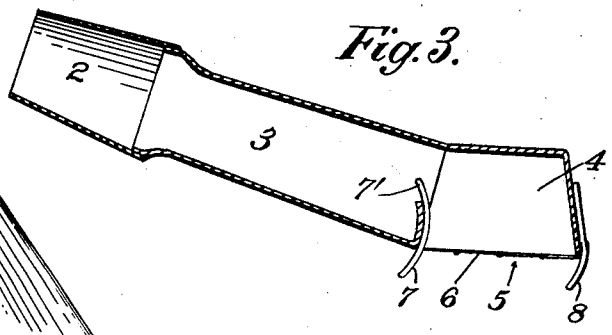


Fig. 3.

Inventor
Eugene E. Roever
By his Attorney

UNITED STATES PATENT OFFICE.

AUGUST E. ROEVER, OF BROOKLYN, NEW YORK.

VACUUM-NOZZLE FOR SIFTING ASHES.

1,355,507. Specification of Letters Patent. Patented Oct. 12, 1920.

Application filed May 27, 1920. Serial No. 384,552.

To all whom it may concern:

Be it known that I, AUGUST E. ROEVER, a citizen of Germany, (who has applied for naturalization as a citizen of the United States, having received his first papers before war was declared by the United States against Germany, and who still expects to become such citizen of the United States,) residing at Brooklyn, in the county of Kings and city and State of New York, have invented certain new and useful Improvements in Vacuum-Nozzles for Sifting Ashes, of which the following is a specification.

This invention relates to vacuum cleaner implements or nozzles, the object of the invention being to provide an improved nozzle adapted for use in the sifting of ashes in connection with a vacuum apparatus, and which nozzle is so constructed that it will effectively separate the dust and dirt and smaller portions of the ashes from the unburned coal and larger portions of such ashes, and is so constructed that during this operation the nozzle can be manipulated to effectively rake the ashes thereby to facilitate such separation, the nozzle also being so constructed as to prevent the clogging thereof by the larger portions of the ashes.

An object of the invention is the provision of an improved nozzle of the character described, simple in construction, effective in use, comparatively inexpensive to make and which will be extremely rigid and durable.

In the drawings accompanying and forming a part of this specification, Figure 1 is a perspective view of this improved nozzle with a part of the top thereof broken away more clearly to illustrate the underside thereof; Fig. 2 is a perspective view of the underside of the nozzle; and Fig. 3 is a cross sectional view of the nozzle.

Similar characters of reference indicate corresponding parts in the several figures of the drawings.

This improved nozzle in the preferred form thereof shown comprises a suitable tubular portion of relatively large diameter 2 for the reception of a vacuum hose. This tubular portion is connected to a flaring chamber 3 which terminates in a rectangular chamber of relatively large dimensions 4. The mouth 5 of this chamber, which is relatively wide is covered by a suitable separating or protecting medium in the form of a wire mesh 6, the meshes of which are relatively large. Carried by the forward and rear walls of the mouth are two series of projections 7 and 8 located in alternation, that is to say, the projections of one series alternate with the projections of the other and are bent rearwardly, *i. e.* toward the rear of the nozzle. The projections 7 are prolonged so as to extend up into the nozzle as shown at 7′ and thus form an additional means for separating the dust from the dirt and prevent the clogging of the hose or of the vacuum apparatus used in connection with the nozzle. The projections forming the rake also constitute a means for holding the mouth of the nozzle a certain distance from the floor when the nozzle is in contact with the ashes, thus facilitating the separation of the ashes from the coal and clinkers.

In the use of this improved nozzle when suitably attached to the vacuum apparatus, the movement of the nozzle back and forth over the pile of ashes will result in the raking of the larger particles, such as the unburned portions of coal, etc. from the finer portions as the dust and dirt, and thus facilitate the drawing of the latter into and through the nozzle.

It will be understood of course, that the various details may be more or less changed without departing from the spirit or scope of the present improvement.

I claim as my invention:

1. A vacuum ash sifter nozzle comprising a relatively large chamber having a mouth, separating means covering said mouth, and a series of independent downwardly extending projections located along a wall transversely of said mouth.

2. A vacuum ash sifter nozzle comprising a relatively large chamber having a mouth, separating means covering said mouth, and two series of downwardly extending projections located along opposite walls of said mouth.

3. A vacuum ash sifter nozzle comprising a relatively large chamber having a mouth, a relatively large open mesh fabric covering said mouth, and two series of downwardly extending projections located along opposite walls of said mouth, the projections of one series being located in alternation with the projections of the other series.

4. A vacuum ash sifter nozzle comprising

a relatively large chamber having a mouth, a relatively large open mesh fabric covering said mouth, and two series of downwardly extending projections located along opposite walls of said mouth, said projections being rearwardly bent.

5. A vacuum ash sifter nozzle comprising a relatively large chamber having a mouth, a relatively large open mesh fabric covering said mouth, and two series of downwardly extending projections located along opposite walls of said mouth, the projections of one series being located in alternation with the projections of the other series, said projections being rearwardly bent.

6. A vacuum ash sifter nozzle having a relatively large chamber provided with a mouth, said chamber terminating in a flaring chamber provided with a tubular hose attaching portion, a relatively large wire mesh protecting said mouth, and a series of independent projections carried along a wall transversely of said mouth and extending both upwardly at the rear of said mouth and downwardly below said mouth.

7. A vacuum ash sifter nozzle having a relatively large chamber provided with a mouth, said chamber terminating in a flaring chamber provided with a tubular hose attaching portion, a relatively large wire mesh protecting said mouth, and a series of projections carried along a wall of said mouth and extending both upwardly at the rear of said mouth and downwardly below said mouth, the downwardly extending projections being bent rearwardly.

8. A vacuum ash sifter nozzle having a relatively large chamber provided with a mouth, said chamber terminating in a flaring chamber provided with a tubular hose attaching portion, a relatively large wire mesh protecting said mouth, and a series of projections carried along a wall of said mouth and extending both upwardly at the rear of said mouth and downwardly below said mouth, said nozzle also having a duplicate series of downwardly extending projections located along the front wall of said mouth.

9. A vacuum ash sifter nozzle having a relatively large chamber provided with a mouth, said chamber terminating in a flaring chamber provided with a tubular hose attaching portion, a relatively large wire mesh protecting said mouth, and a series of projections carried along a wall of said mouth and extending both upwardly at the rear of said mouth and downwardly below said mouth, the downwardly extending projections being bent rearwardly, said nozzle also having a duplicate series of downwardly extending projections located along the front wall of said mouth.

10. A vacuum ash sifter nozzle having a relatively large chamber provided with a mouth, said chamber terminating in a flaring chamber provided with a tubular hose attaching portion, a relatively large wire mesh protecting said mouth, and a series of projections carried along a wall of said mouth and extending both upwardly at the rear of said mouth and downwardly below said mouth, said nozzle also having a duplicate series of downwardly extending projections located along the front wall of said mouth, one series of projections being in alternation with the other series thereof.

11. A vacuum ash sifter nozzle having a relatively large chamber provided with a mouth, said chamber terminating in a flaring chamber provided with a tubular hose attaching portion, a relatively large wire mesh protecting said mouth, and a series of projections carried along a wall of said mouth and extending both upwardly at the rear of said mouth and downwardly below said mouth, the downwardly extending projections being bent rearwardly, said nozzle also having a duplicate series of downwardly extending projections located along the front wall of said mouth, one series of projections being in alternation with the other series thereof.

12. A vacuum ash sifter nozzle having a relatively large chamber provided with a mouth, said chamber terminating in a flaring chamber provided with a tubular hose attaching portion, a relatively large wire mesh protecting said mouth, and a series of projections carried along a wall of said mouth and extending both upwardly at the rear of said mouth and downwardly below said mouth, said nozzle also having a duplicate series of downwardly extending projections located along the front wall of said mouth, one series of projections being in alternation with the other series thereof and said downwardly extending projections being bent rearwardly.

13. A vacuum ash sifter nozzle having a relatively large chamber provided with a mouth, said chamber terminating in a flaring chamber provided with a tubular hose attaching portion, a relatively large wire mesh protecting said mouth, and a series of projections carried along a wall of said mouth and extending both upwardly at the rear of said mouth and downwardly below said mouth, the downwardly extending projections being bent rearwardly, said nozzle also having a duplicate series of downwardly extending projections located along the front wall of said mouth, one series of projections being in alternation with the other series thereof and said downwardly extending projections being bent rearwardly.

Signed at New York city, county of New York and State of New York, this 25th day of May, 1920.

AUGUST E. ROEVER