

A. J. SANFORD.
 BURNER FOR FIRE POLISHING GLASSWARE.
 APPLICATION FILED JUNE 26, 1909.

993,554.

Patented May 30, 1911.

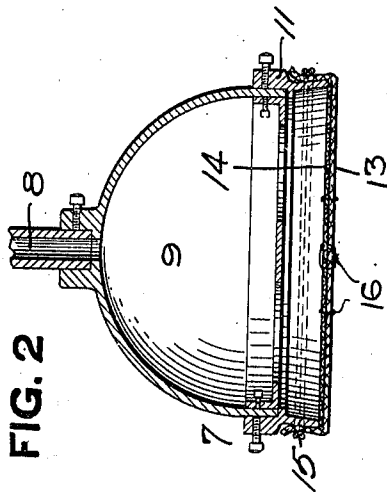


FIG. 3

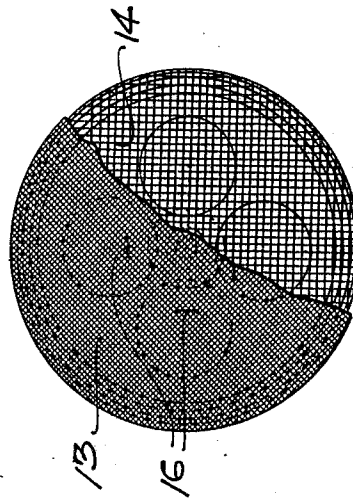
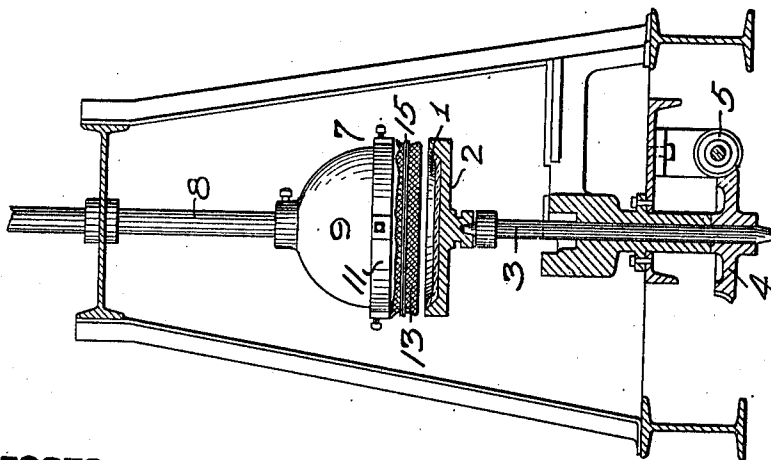


FIG. 1



WITNESSES.

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UNITED STATES PATENT OFFICE.

ANDREW J. SANFORD, OF NEWARK, OHIO, ASSIGNOR TO A. H. HEISEY & CO., INC., OF NEWARK, OHIO, A CORPORATION OF WEST VIRGINIA.

BURNER FOR FIRE-POLISHING GLASSWARE.

993,554.

Specification of Letters Patent.

Patented May 30, 1911.

Application filed June 26, 1909. Serial No. 504,549.

To all whom it may concern:

Be it known that I, ANDREW J. SANFORD, a resident of Newark, in the county of Licking and State of Ohio, have invented a new and useful Improvement in Burners for Fire-Polishing Glassware; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to burners for polishing glassware, its object being to provide a burner having innumerable gas jet openings for feeding the mixed gas and air through the same so as to maintain on the outer surface of the burner a practically continuous surface of jet flames to play upon the articles to be fire polished.

The burner is suitable for use in connection with certain methods of fire polishing as described in applications filed by me of even date herewith, Serial Nos. 504,552 and 504,553.

The burner of the present invention comprises a suitable burner body and a burner face supported thereby and adapted to provide multitudinous jet orifices for the flame jets consisting in asbestos cloth in combination with and supported by a sheet of wire netting attached to the burner body.

In the accompanying drawings Figure 1 is a section of fire polishing apparatus having the improved burner applied thereto; Fig. 2 is an enlarged cross section of the burner body illustrating its preferred construction; while Fig. 3 is a face or bottom view of the burner.

The burner is illustrated as for use in connection with fire polishing apparatus where the article to be fire polished, as shown at 1, rests on a suitable support or former 2 carried upon a vertically moving shaft 3 which in its raised position, as shown, is adapted to be rotated by suitable power connections, for instance by a worm wheel 4 on said shaft 3 driven by a suitable worm 5. The burner 7 is suspended from the air and gas supply pipe 8, air under pressure and gas being supplied thereto in any suitable way. The burner, as illustrated, consists of the mixing chamber 9 and the burner forming the special subject matter of the present application. Such burner is formed of a cast iron ring 11 with suitable set screws for attaching the same to the body of the cast iron mixing chamber, and over the face of such burner is stretched

in any suitable way a covering of asbestos cloth as shown at 13. As it is desired to free the asbestos cloth from any strain to prevent the sagging of the same so as to provide a burner of proper surface for example, a flat burner, I prefer to employ a sheet of wire netting 14 cut to fit over the base of the ring 11 and to stretch the asbestos cloth over said wire netting, carrying it up over the edge of the ring and securing it in place in any suitable way, such as by the wire band 15. It is also preferred to tie the asbestos cloth to the wire netting at suitable points to hold it thereto as illustrated at 16. The asbestos cloth is formed with a mesh having small openings therein and it is found that such mesh provides numerous evenly distributed jet orifices of substantially equal size extending over the entire jet face of the burner so that the mixed gas and air escape through the same and being ignited on the outside form a very uniform surface of evenly distributed jet flames extending entirely over the burner, the jet flames being of practically the same length so as to give very even fire polishing while they are brought very much closer together than is possible in drilling perforations in a casting. The wire netting serves to support the asbestos face and prevent its sagging, thereby increasing its durability, and at the same time aids in producing the fine flame jets employed in fire polishing.

In the preferred use of the burner it is so set that the flame jets are projected downwardly from the surface thereof and the article to be fire polished is raised by suitable apparatus, such as that above described, so that the innumerable flame jets play down upon the surface thereof, and as the article is rotated all parts of the surface thereof are brought into contact with the flame jets so that it is heated and polished uniformly over its entire surface. Though a very high heat is generated and this heat spreads over the face of the burner it is found that the asbestos cloth forms a very durable and lasting burner not liable to wear under the high heat generated, and that through the mesh of the cloth itself the necessary small and practically innumerable gas and air jet openings are provided, the burner therefore being much cheaper than a cast iron burner where it is

necessary to drill each individual hole or slot for the escape of gas.

What I claim is:

1. A burner for fire polishing comprising
5 a burner body and a burner face secured thereto having a sheet of woven asbestos cloth in combination with a sheet of wire netting, substantially as described.

2. A burner for fire polishing glassware
10 comprising a burner body, a burner face formed of asbestos cloth, a ring around said burner body securing said asbestos face thereto, and a wire netting supported between the burner body and the asbestos face.

3. A burner for fire polishing glassware 15 comprising a hollow burner body, a burner face formed of asbestos cloth and a sheet of wire netting extending across the burner body and secured at intervals to the asbestos cloth, and means for holding said asbestos 20 cloth and said netting to said burner body.

In testimony whereof, I the said ANDREW J. SANFORD have hereunto set my hand.

ANDREW J. SANFORD.

Witnesses:

E. J. MORATH,
J. E. SNELLING.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
