No. 843,377. PATENTED MAR. 26, 1907.

J. KUDRLE & L. SVOBODA.

CLOTH STEAMING BRUSH.

APPLICATION FILED DEC. 18, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

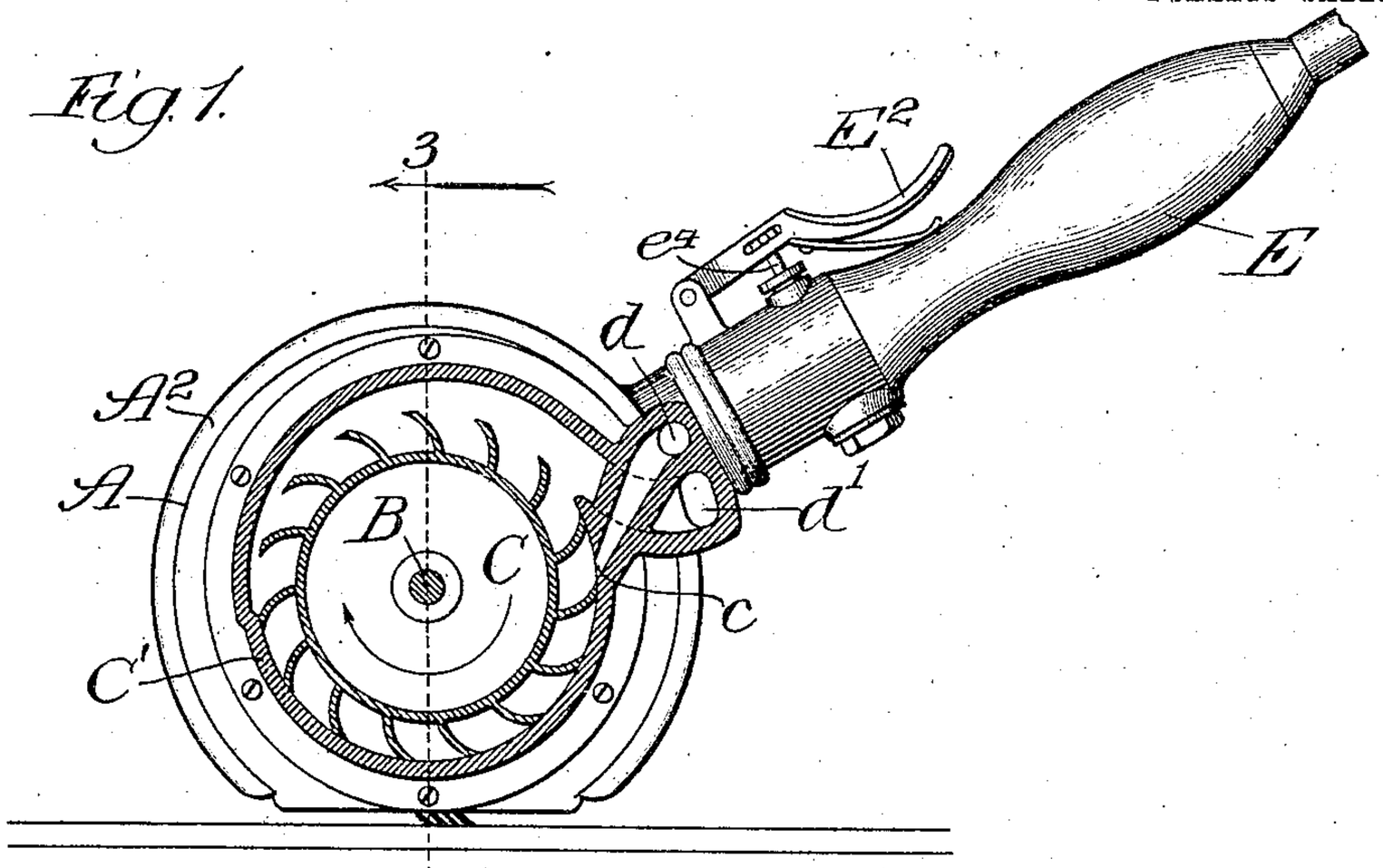
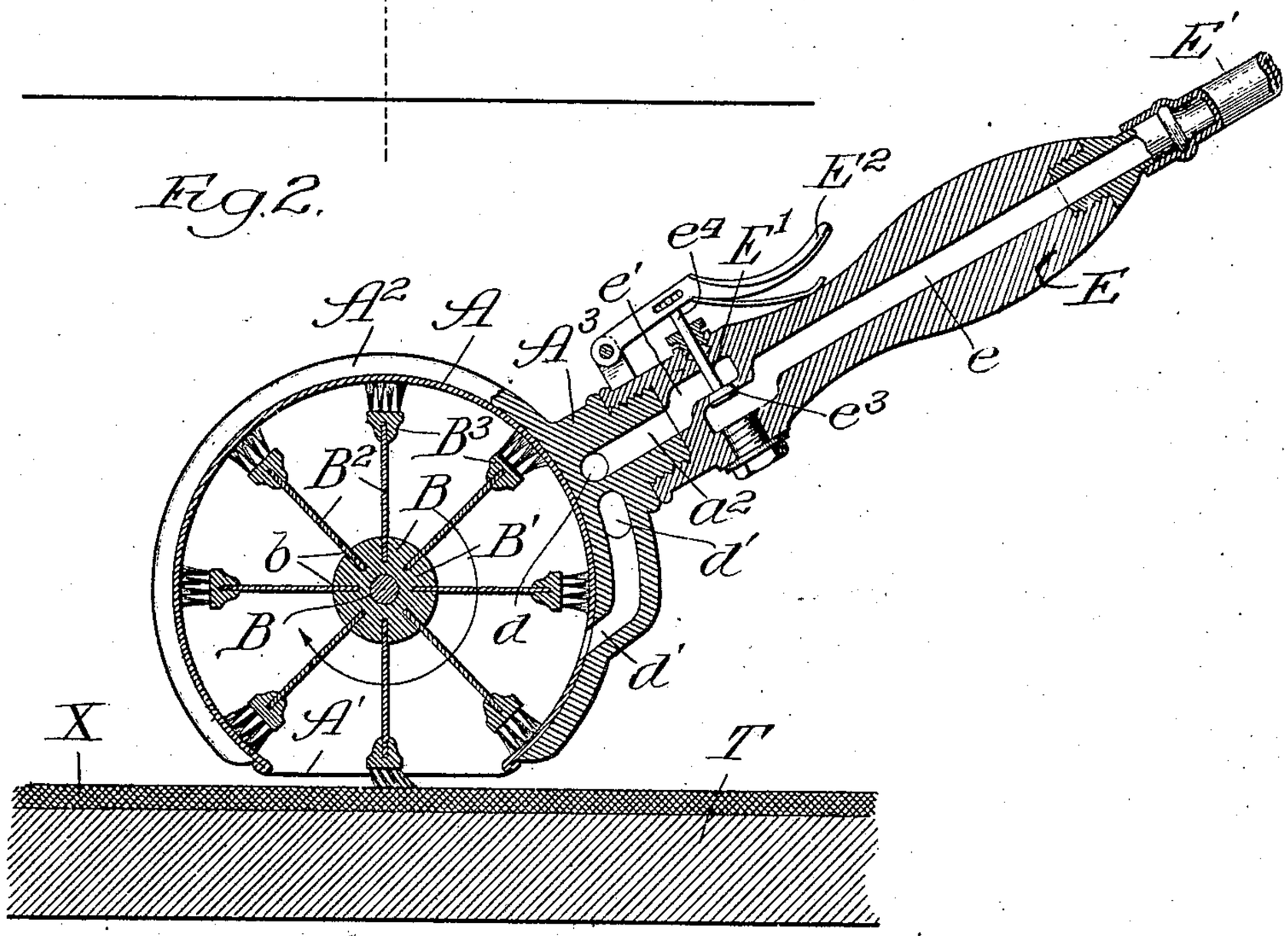


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

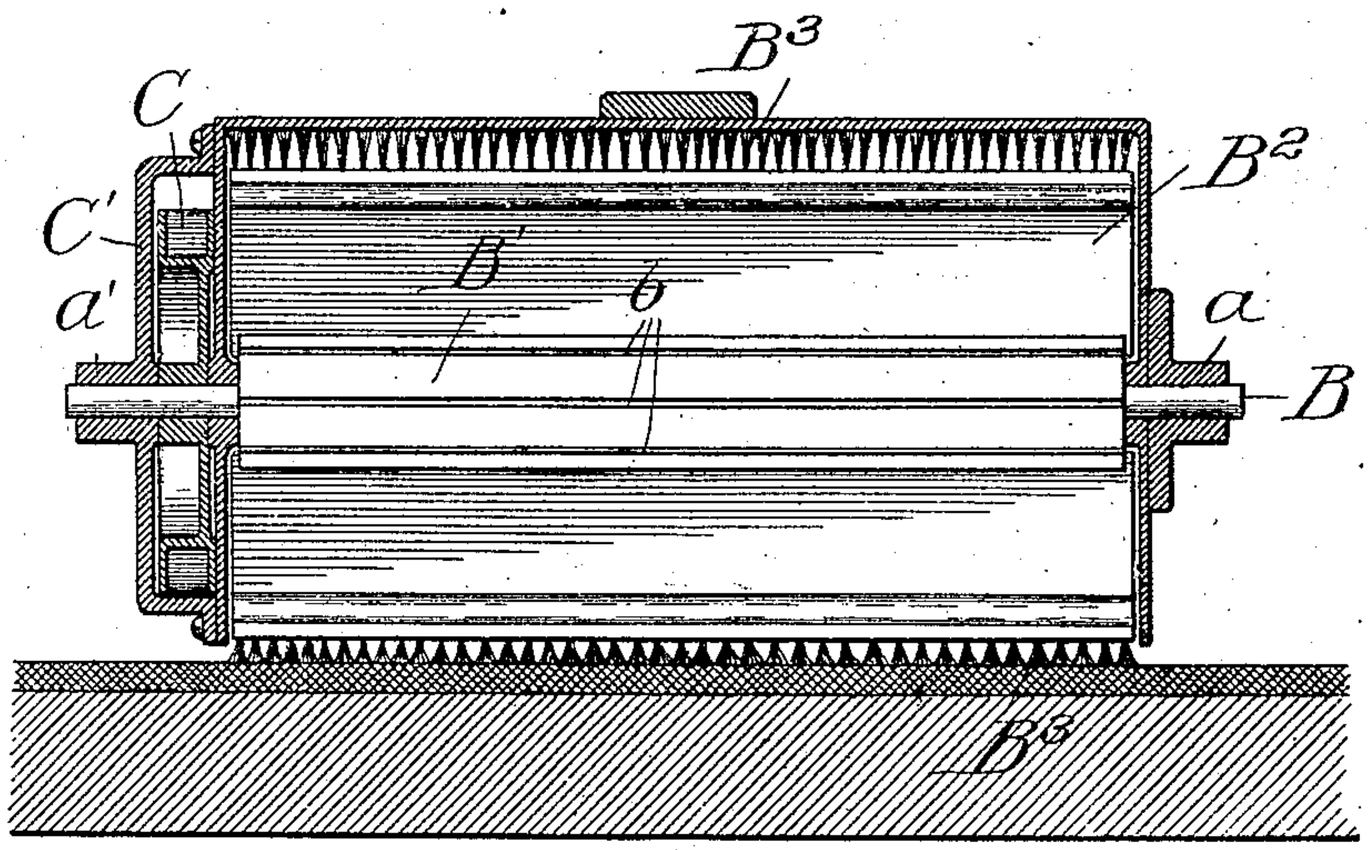
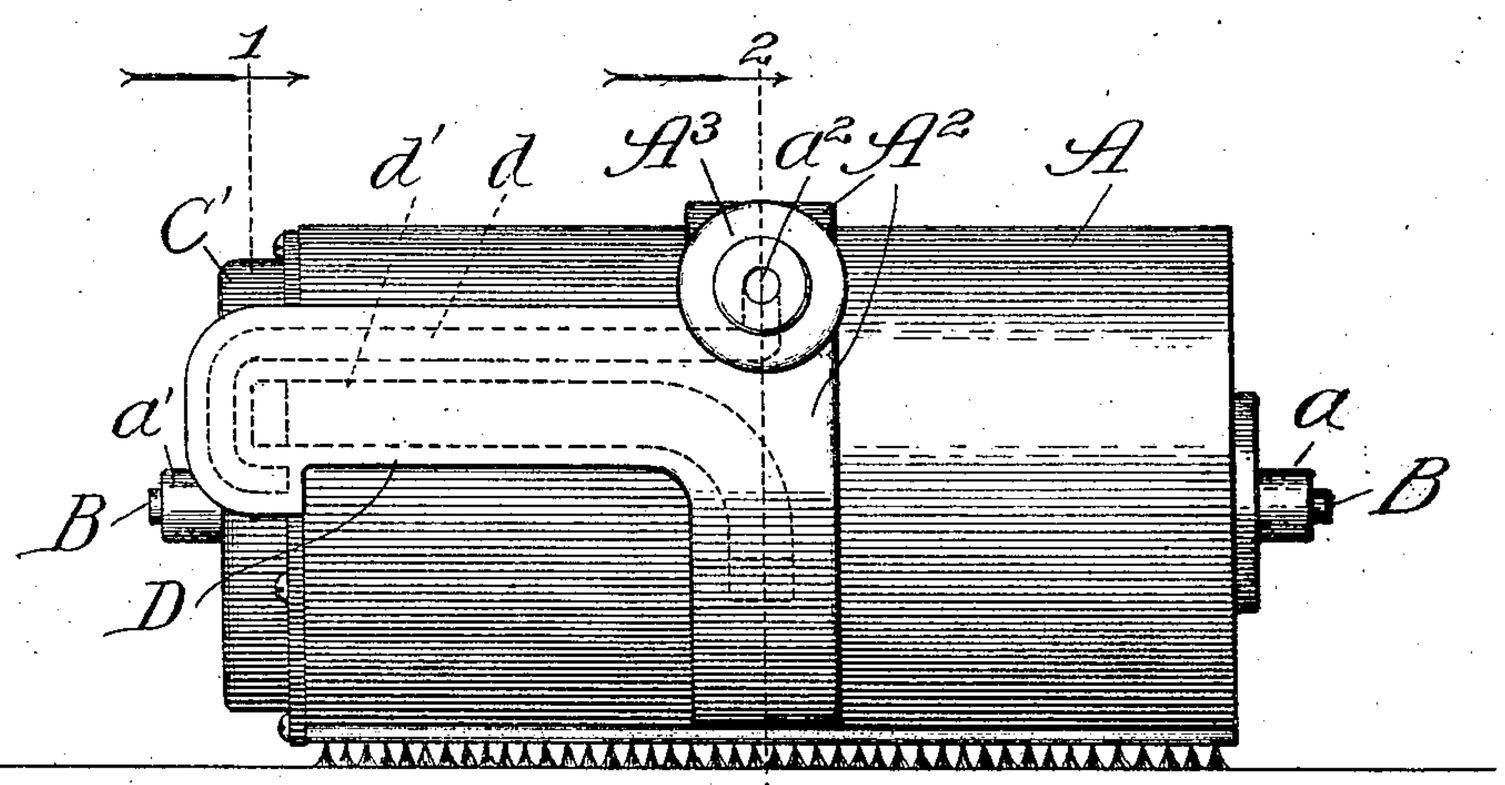


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAROSLAV KUDRLE AND LAWRENCE SVOBODA, OF CHICAGO, ILLINOIS.

CLOTH-STEAMING BRUSH.

No. 848,377. Specification of Letters Patent. Patented March 26, 1907.

Application filed December 18, 1905. Serial No. 292,401.

To all whom it may concern:

Be it known that we, JAROSLAV KUDRLE and LAWRENCE SVOBODA, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Cloth-Steaming Brushes, of which the following is a specification.

Our invention relates to a device for removing gloss produced upon cloth during the pressing operation.

In pressing cloth or cloth garments by means of a heated sad-iron applied to a dampened cloth on the goods an objectionable gloss is commonly produced on the surface of the goods and requires to be removed. Heretofore it has been the practice in removing the gloss to rapidly move the hot iron over a wet cloth laid upon the goods to force the steam from the cloth against the glossy surface, and thus raise the nap. This method is unsatisfactory, since it tends to dampen the goods excessively, with the effect of impairing the result of the pressing operation and requiring the pressing to be performed over again.

One of our objects is to overcome this objection, and we accomplish it by providing a brush device adapted to be swept against the surface of the goods and equipped with means for directing steam against said surface while it is undergoing the brushing operation.

We have illustrated our invention in a preferred form of its embodiment in the accompanying drawings, in which—

Figure 1 is a view, partly in sectional elevation, of our device, the section being taken at the line 1 on Fig. 4 and viewed in the direction of the arrow; Fig. 2, a section taken at line 2 of Fig. 4 and viewed in the direction of the arrow; Fig. 3, a section through the casing with the brush-equipped blades intermediate the upper and lower brush removed from the hub, the section being taken on line 3 in Fig. 1 and viewed in the direction of the arrow; and Fig. 4, a view of the device in rear elevation with the handle removed, showing by dotted lines the steam-passages leading to and from the motor.

A is a cylindrical casing provided with an opening A′ on its under side.

B is a shaft extending centrally through the casing and journaled in bearings *a a′* at the ends thereof.

A hub B′ surrounds the shaft and is provided with radial slots or recesses *b*, in which blades B^2 of a length approximating the interior of the casing are secured. The blades are each provided with a brush-head B^3, the bristles of which during the rotation of the shaft B, as hereinafter described, project through the opening A′ in the casing against the goods X, as represented in Fig. 2, the goods being laid upon a pressing-table T for undergoing the gloss-removing operation.

C is a steam-turbine of a well-known or any suitable type mounted on one projecting end of the shaft B and covered by a housing C′, secured to the adjacent end of the casing. The casing A is provided intermediate of its ends with a circumferential band A^2, extending to nearly opposite sides of the opening A′, having a handle-receiving screw-threaded nozzle A^3.

D is a casting extending from the band A^2 beyond the motor-equipped end of the casing and containing a steam-passage *d*, leading from a passage a^2 in the nozzle A^3 to the inlet-port *c* of the turbine.

A handle E screws at one end upon the nozzle A^3 and is provided with a steam-passage *e*, connected by a flexible tube E′ with a suitable source of steam-supply. (Not shown.) The passage a^2 in the nozzle connectswith a passage *e′* in the handle, the latter passage having controllable communication with the passage *e* through the medium of the valve E′, for which the seat e^3 is provided. The valve is suitably connected at its stem e^4 with a spring-pressed operating handle or lever E^2.

The operation of the device is as follows: The operator holds the implement by the handle E in proper relation to the article X to be subjected to the gloss-removing treatment. In that position of the implement steam is admitted to the turbine by pressing the lever E^2, thus opening the valve E′, which causes steam to enter the turbine through the passages *e*, *e′*, and a^2 to rotate it and the brushes B^3. After the steam performs its work in the turbine it is exhausted through the passage *d′* into the casing A, whence it discharges through the opening A′ in the casing against the surface of the goods. Operating the turbine causes the brushes to revolve and sweep across the opening A′ against the surface of the goods. The exhaust-steam from the turbine is thus directed against the goods during the pressing operation, thus dampening the surface and

preparing it to enable the brushes to raise the nap, whereby the gloss is removed.

A motor on the brush-shaft is not an indispensable feature of our invention, since it is quite feasible to drive the brushes by the impact force of the steam directed against the brush-blades.

What we claim as new, and desire to secure by Letters Patent, is—

1. In a cloth-steaming brush, the combination of a casing provided with an opening for directing steam against the goods under treatment, a brush device rotatably mounted in said casing to sweep against the surface of goods through said opening, means for rotating said device, and means for introducing steam into said casing and against the goods through said opening, whereby the steam and brush device coact against the goods, for the purpose set forth.

2. In a cloth-steaming brush, the combination of a casing provided with an opening, brushes rotatably mounted in said casing to sweep against the goods through said opening, steam-actuated means for rotating the brushes, and an exhaust-passage leading from said steam-actuated means to the interior of the casing to discharge the exhaust-steam, through said opening, whereby the steam and brushes coact against the goods, for the purpose set forth.

3. In a cloth-steaming brush, the combination of a casing provided with an opening, a shaft rotatably mounted in the casing, brushes extending radially from said shaft and adapted to sweep against the surface of goods through said opening, a steam-operated turbine connected with said shaft to rotate the brushes, and an exhaust-passage leading from the turbine to the interior of the casing for directing exhaust-steam therethrough and through said opening against the goods, for the purpose set forth.

4. In a cloth-steaming brush, the combination of a cylindrical casing provided with an opening, a shaft journaled therein, blades extending radially on said shaft and equipped at their outer ends with brushes adapted to sweep against the surface of goods through said opening, a steam-turbine on the shaft at one end of the casing for rotating the brushes, a handle provided with a valved steam-supply pipe connected with the turbine, and an exhaust-passage leading from said turbine to the interior of the casing for directing steam therethrough and through said opening against the goods, for the purpose set forth.

JAROSLAV KUDRLE.
LAWRENCE SVOBODA.

In presence of—
J. H. LANDES,
W. B. DAVIES.