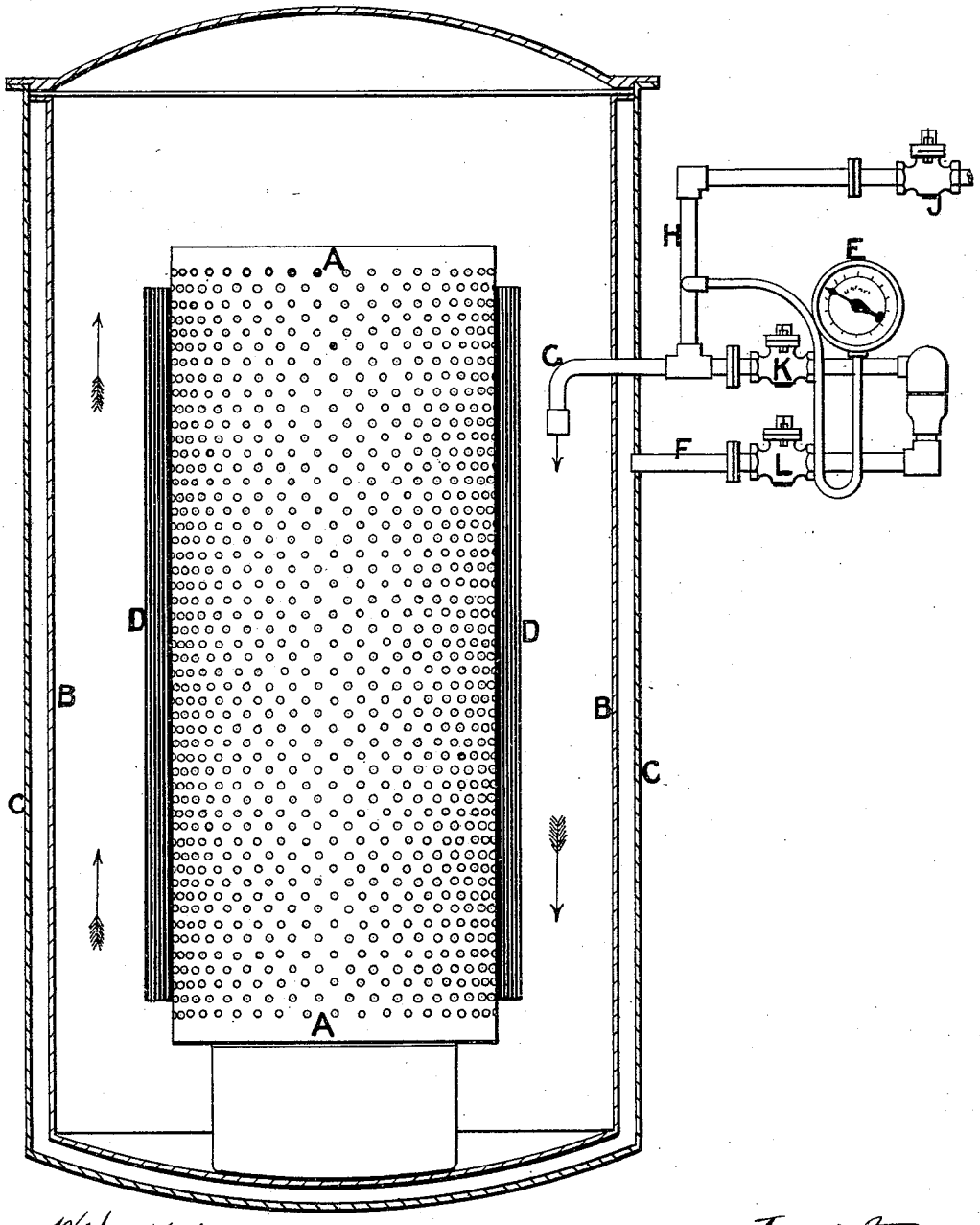
(No Model.) 2 Sheets—Sheet 1.

J. KIRK & B. LEE.

APPARATUS FOR FINISHING CLOTH.

No. 473,398. Patented Apr. 19, 1892.

FIG. 1.



Witnesses
Herbert Dunn
Frederick William Haines

Inventors:
Joshua Kirk
Benjamin Lee

(No Model.) 2 Sheets—Sheet 2.

J. KIRK & B. LEE.

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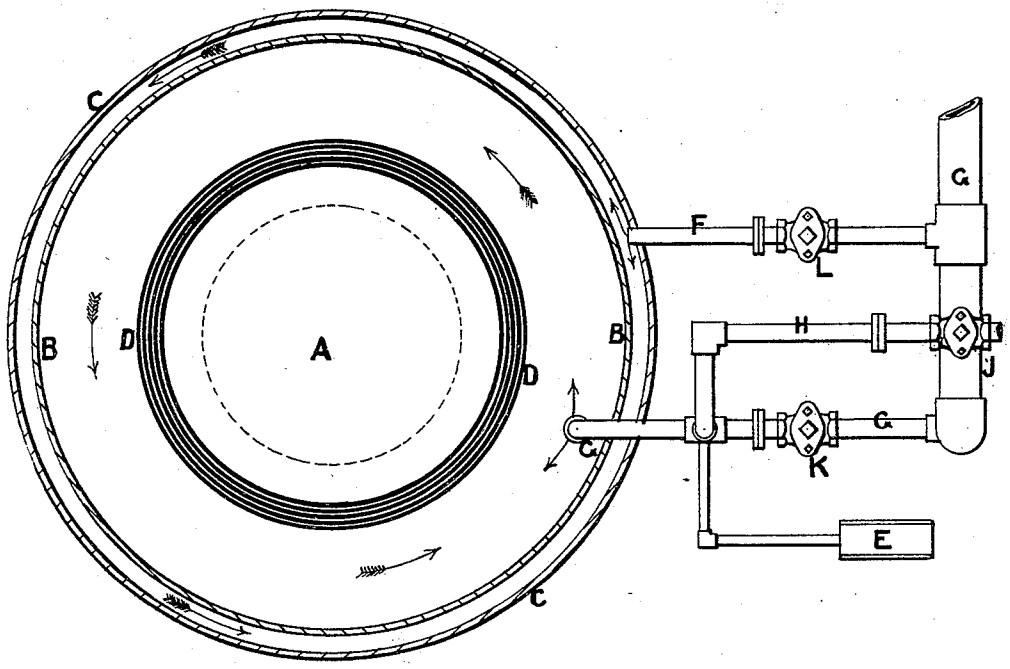
No. 473,398. Patented Apr. 19, 1892.

FIG. 2.



Witnesses—
Herbert Dunn.
Frederick William Haines,

Inventors—
John Kirk
Benjamin Lee

UNITED STATES PATENT OFFICE.

JOHN KIRK AND BENJAMIN LEE, OF LEEDS, ENGLAND.

APPARATUS FOR FINISHING CLOTH.

SPECIFICATION forming part of Letters Patent No. 473,398, dated April 19, 1892.

Application filed April 22, 1891. Serial No. 390,027. (No model.) Patented in England August 14, 1890, No. 12,739.

To all whom it may concern:

Be it known that we, JOHN KIRK and BENJAMIN LEE, subjects of the Queen of Great Britain, residing at Leeds, in the county of York, England, have invented new and useful Improvements in Apparatus for Finishing Cloth and other Suitable Fabrics, (for which we have obtained a patent in Great Britain, No. 12,739, dated August 14, 1890,) of which the following is a specification.

The object of our invention is to secure a more permanent finish than is produced by the ordinary means.

In the drawings, Figure 1 is a front elevation, partly in section, of our apparatus for securing a permanency of finish. Fig. 2 is a plan of the devices shown in Fig. 1.

The goods after being prepared, dyed, and pressed (preferably by our patent pressing-machine, No. 5,999, dated April 23, 1888) are wrapped upon a perforated cylinder A, which is placed within a double-cased cylinder or other suitable chamber B. Steam is injected into the outer casing C of the chamber by means of pipe F and into the inner chamber of the cylinder B by means of pipes G and H outside the goods D to be operated upon. The steam in the inner chamber of the cylinder B is not only in contact with the outer surface of the roll of goods on the perforated cylinder A, but entering said cylinder and passing through its perforations it comes also in contact with the inner surface of the roll.

Stop-cocks are provided at J, K, and L for regulating the respective supplies. By this means the heat from the outer casing or steam-chamber C keeps the steam in contact with the goods D perfectly dry, and the steam in the inner chamber B may work at much higher pressure than the steam within the outer case C, the pressure being regulated to suit the goods being operated upon.

Gages E with indicators are fixed to the steam-pipes to indicate the pressures.

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

In an apparatus for finishing cloth, the combination of a cylinder B, the interior of which constitutes a steam-chamber, an outer casing C, surrounding the cylinder and separated therefrom to provide an intervening steam-space, an open perforated cylinder A, communicating with the steam-chamber of the cylinder, and valved steam-pipes leading, respectively, into the steam-chamber of the cylinder and the steam-space surrounding the same, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN KIRK.
BENJAMIN LEE.

Witnesses:
HERBERT DUNN,
FREDERIC WILLIAM HAINES,
Both of Royal Exchange, Leeds.