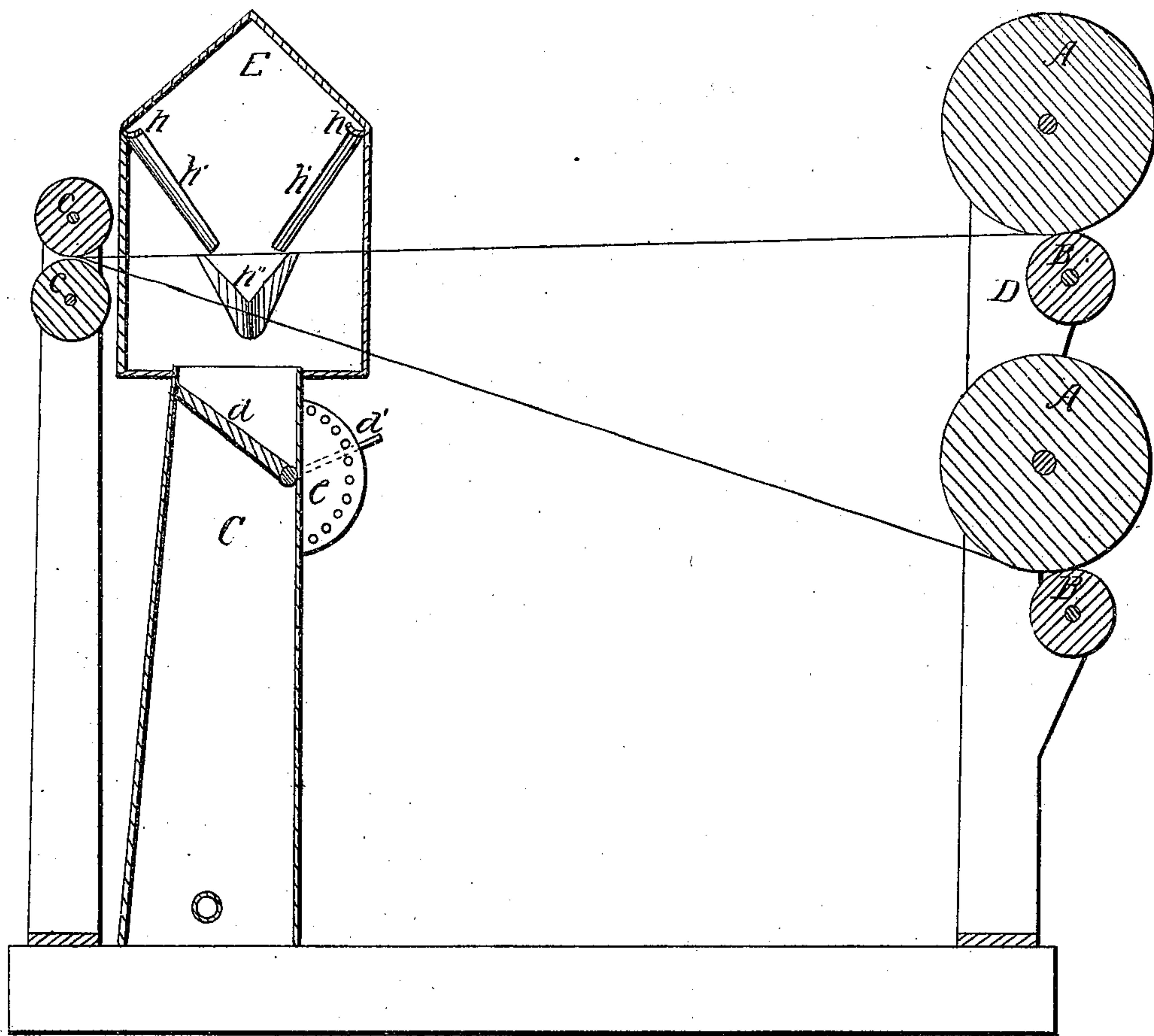


S. Barber,
Carding Machine.

N^o 95,413.

Patented Oct. 5, 1869.



Witnesses:

G. I. O'Brien
C. O. Brown

Inventor

Solomon Barber
by Geo E. Brown Atty

United States Patent Office.

SOLOMON BARBER, OF SOUTH COVENTRY, CONNECTICUT.

Letters Patent No. 95,413, dated October 5, 1869.

IMPROVEMENT IN DEVICE FOR STEAMING ROVINGS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, SOLOMON BARBER, of South Coventry, in the State of Connecticut, have invented a new and useful Improvement in Steaming Wool or Cotton in Carding-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is a transverse vertical section.

This invention consists in an apparatus, hereinafter described, for applying steam to strands of undressed wool or cotton while on their way from the rolls to the card-cylinders, for the purpose of uniformly warming and moistening the strands.

To enable those skilled in the art to make and use my invention, I now proceed to describe its construction and operation.

Similar letters in the drawings refer to like parts.

In the drawings—

A represents rolls, on which are wound woollen or cotton strands or roving, which rolls rest upon wooden cylinders, B B, suitably mounted in standards, D, which cylinders, by friction, rotate the rolls, all in a well-known manner.

The roving passes from the roll A between small rollers c, which feed it to the card-cylinder. On its way to the feed rollers, I pass it through a reservoir, C, containing steam of uniform density, supplied to the reservoir through a stop-cock at its bottom. The reservoir is open at the top, but is supplied with a damper, d, inside and near the top, of a size to close the orifice when shut down, and operated by means of a handle, d', projecting from one extremity of the damper through the end of the reservoir, and bent so as to extend by the side of a semicircular plate, e, attached to the side of the reservoir, and provided with a row of holes, into either of which a pin may be placed so as to keep the handle and damper in any required position.

Upon the top of the reservoir is placed a peaked roof, E, the space between the lower edges of the roof and the top of the reservoir being left open so as to admit of the passage of the roving. In this space the roving receives the steam, which afterward passes off at the open sides. It is to be noticed that the steam is in a diffused condition when it comes in contact with the roving, and herein is the essence of my invention.

I am well aware that it is no new thing to apply steam to roving, in the form of jets, from a perforated pipe passing close under the strand, but I consider this method inferior to mine, in that it does not moisten the strands uniformly, leaving them less wet on the upper than on the lower sides, and, unless the jets are very close together, leaving dry spots between them.

By my method the roving is moistened with perfect uniformity, rendering it extremely pliable, and capable of being drawn out very fine, and dispensing with the use of oil, thus effecting a considerable saving.

My arrangement of the roof E is quite useful, as it serves to retain heat and deflect the body of steam just where it is needed.

Inside the roof, and at its lower edges, are longitudinal gutters, h h, into which the moisture condensed upon the roof trickles down, and from which it escapes through gutters h' h' and a spout, h'', into the reservoir, which is provided with an outlet for it.

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

The reservoir C and damper D, combined with the inclined roofed chamber E through which the roving passes, the roof deflecting the steam on the roving, substantially as described.

SOLOMON BARBER.

Witnesses:

R. B. WILSON,
SAMUEL WILSON.