

(No Model.)

2 Sheets—Sheet 1.

J. H. LORIMER.
WOOL DRYING MACHINE.

No. 336,928.

Patented Mar. 2, 1886.

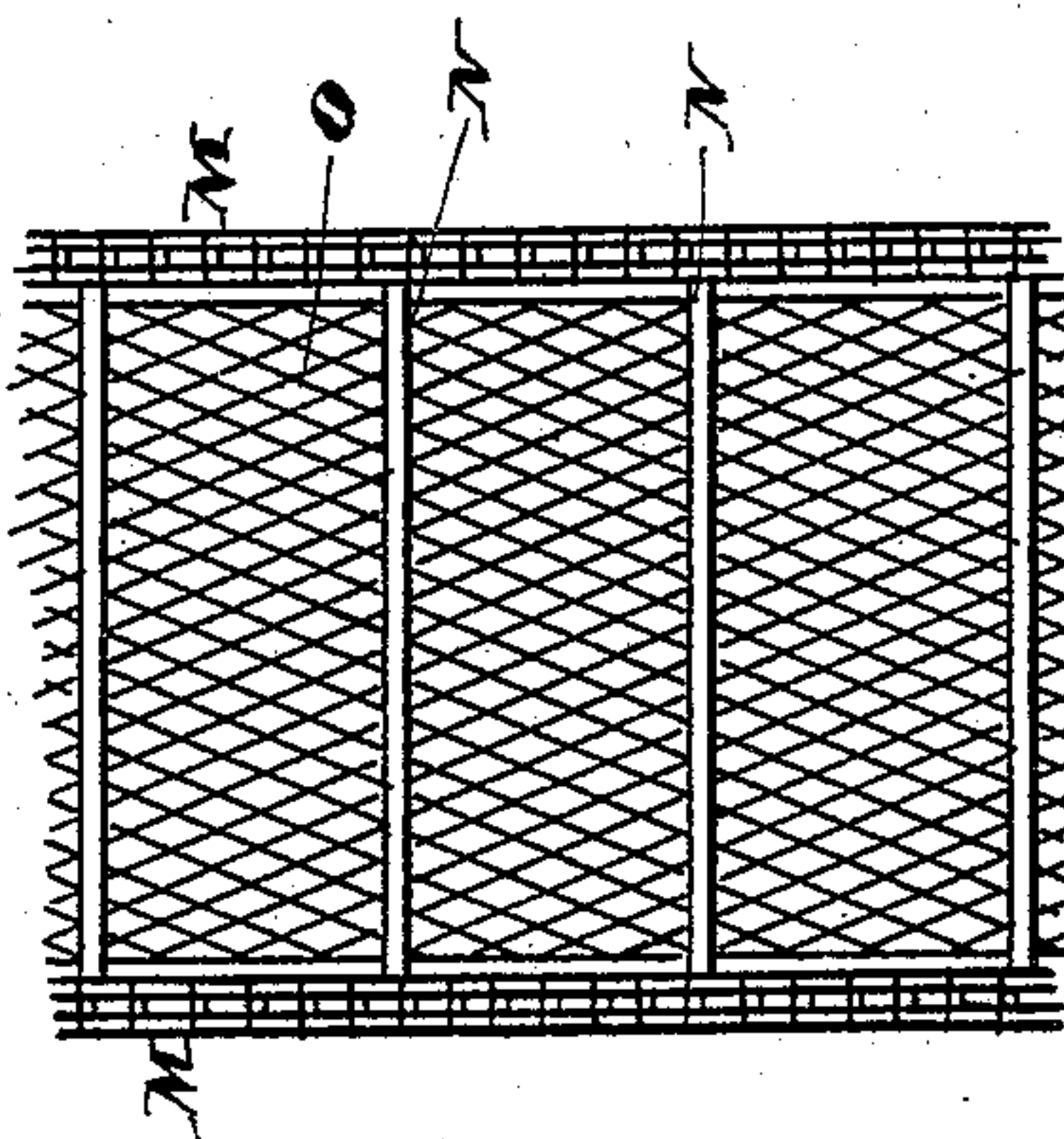
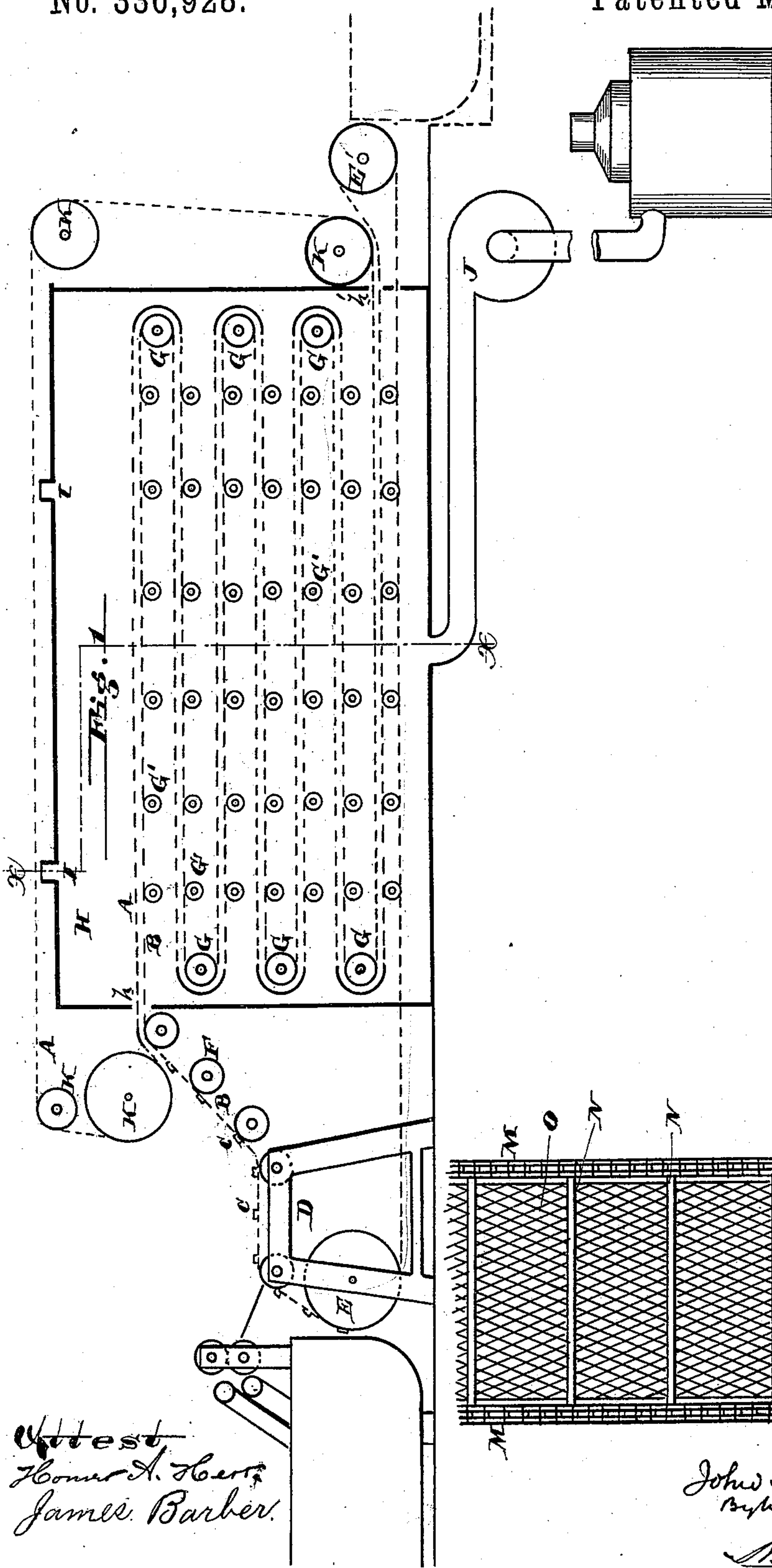


Fig. 2.



Fig. 3.

Witness
Homer A. Hunt
James Barber.

Inventor
John H. Lorimer
By *Wm. H. Smith*

(No Model.)

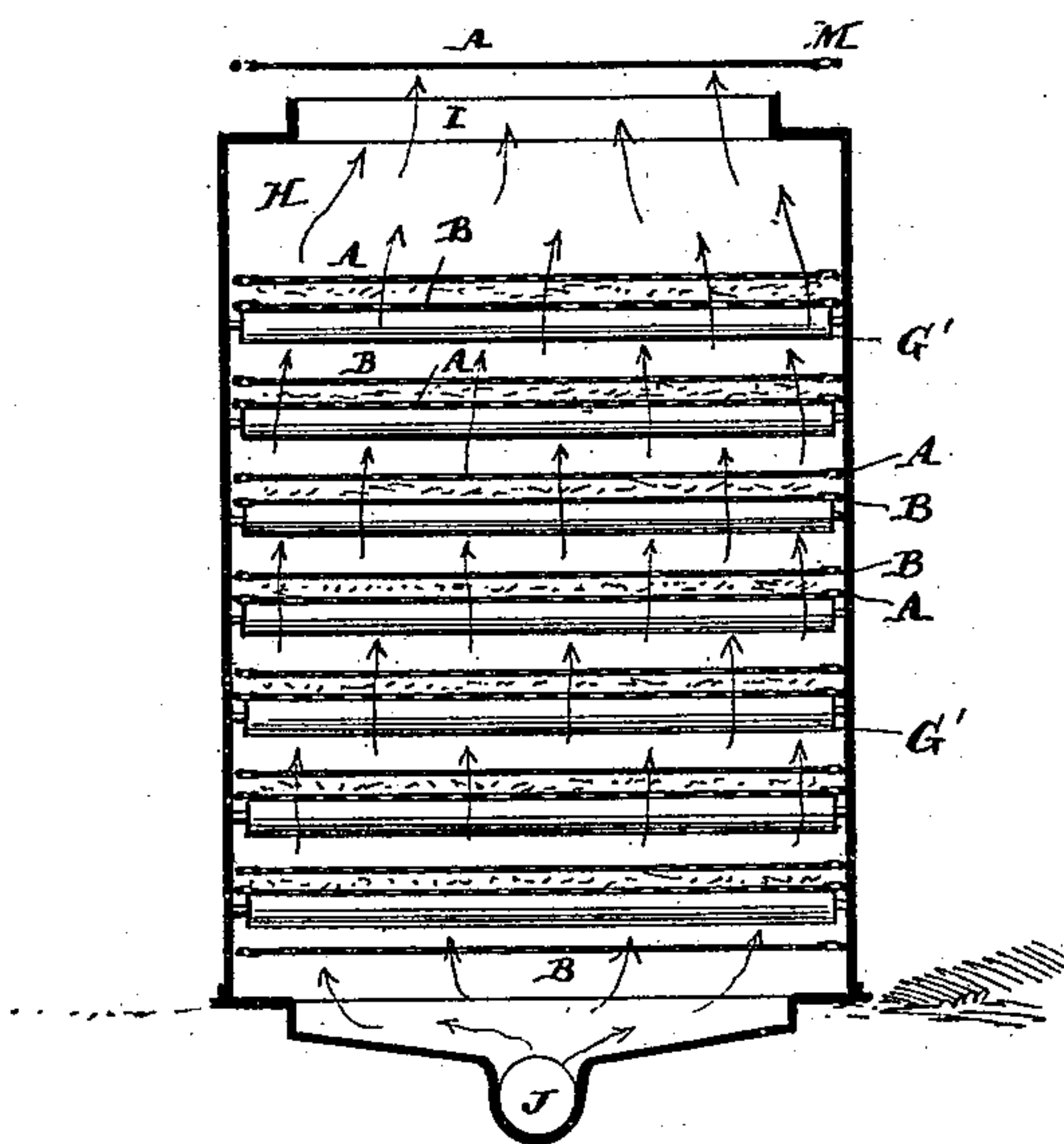
2 Sheets—Sheet 2.

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Fig. 4



Attest
James H. Maguire
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Inventor
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UNITED STATES PATENT OFFICE.

JOHN H. LORIMER, OF PHILADELPHIA, PENNSYLVANIA.

WOOL-DRYING MACHINE.

SPECIFICATION forming part of Letters Patent No. 336,928, dated March 2, 1886.

Application filed December 26, 1884. Serial No. 151,162. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. LORIMER, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and
5 useful Improvement in Cotton and Wool Drying Machines, of which the following is a specification.

My invention has reference to drying-machines for wool, cotton, yarns, &c.; and it consists, essentially, in certain improvements fully
10 set forth in the following specification and shown in the accompanying drawings, which form part thereof.

The object of this invention is to dry in as
15 quick a time as possible freshly dyed or scoured wool or cotton in the raw or prepared condition and perform the manipulation in a continuous manner.

In the drawings, Figure 1 is a sectional elevation of a drying-machine embodying my invention. Fig. 2 is a plan view, and Fig. 3 is a cross-section, of one form of apron. Fig. 4
20 is a cross-section of my improved drying-machine on line *xx* of Fig. 1.

A B are two endless aprons, between which the wool or cotton to be dried is held and conveyed through the drier or hot-air chamber, and may be formed of link-chains with slats between, or webbing, netting, or combinations of any two or more of these may be used,
30 the particular construction of these endless conveyers or aprons being immaterial to my invention. These aprons A B lie close upon each other in passing through the heating or
35 drying chamber H, and while passing around and over the guide-rollers G G', moving back and forth or up and down through said chamber, for the purpose of being retained therein as long a time as necessary. The apron A is
40 guided outside the chamber H by rollers K, and apron B by rollers E E'.

D is the feeding-table, and may be of any suitable construction, and the yarns, wool, or cotton to be dried, after being fed upon the
45 apron B, is carried up over rollers F and between it and the apron A, which passes around roller K and enters the drying-chamber H through opening *h*, and, while held between the aprons, and, if desired, prevented from
50 displacement by slats C thereon, is conveyed over rollers G G', and, after passing back and forth a number of times, emerges by

apertures *h'*, and, passing up over rollers K, is delivered from between the aprons A B, the said aprons returning over the rollers K E'. 55

The traveling aprons may be made as shown in Fig. 2, in which M M are two chains or bands connected by slats N, to which the netting or webbing O is secured. The slats are preferably on top of the net-work or next
60 to the cotton, wool, yarn, &c., to be dried, so as to prevent the same from being displaced on turning over the drums or pulleys in transit through the heating apparatus. The netting may be formed of cord or twine or their
65 equivalent, and, if desired, the slats N may have teeth or projections N', to more securely hold the material to be dried from displacement.

The cotton, wool, or yarns in skein or warp
70 may be delivered to the feeding-table D or directly to the endless aprons and conveyed through the drying-chamber. This drying-chamber H may be simply a large chamber into or through which hot air or gas is forced
75 or drawn by a blower or fan, J, or by any other means, the ingress or egress of air being allowed by the openings *h h'*, or, if required, by any suitable openings, as at I I.

I am aware of the patent to James, No. 32,424, 80 of 1861, and English Patent No. 1,513 of 1858, and claim nothing therein set forth or shown, my invention differing from these, in that my conveying-aprons are passed through a drying-chamber through which a drying
85 medium—as air—is circulated, the aprons coming outside the drying-chamber at two points—one to receive the goods to be dried and the other to deliver the dried goods.

Having now described my invention, what I
90 claim as new, and desire to secure by Letters Patent, is—

A close drying-chamber through which a continuous vertical column or current of dry air is passed, in combination, with two endless
95 aprons of open-work adapted to lie close together to hold the material to be dried, and arranged to pass back and forth through the continuous vertical current of dry air, exposing both sides of the material to be dried in
100 alternation to the said current of dry air, and guiding-rollers for said aprons to guide them back and forth within the chamber and bring them out through openings therein for the

feed and discharge, the construction being
such that the material is fed into the ma-
chine and delivered from it in an atmosphere
which is cool and comfortable to work in, and
5 is carried through a hot atmosphere within
the close chamber, and in which the dry air
is passed directly through both sides of the said
material to be dried while in the custody of

the aprons, substantially as and for the pur-
pose specified.

In testimony of which invention I have
hereunto set my hand.

JOHN H. LORIMER.

Witnesses:

R. M. HUNTER,

WILLIAM C. MAYNE.