

(No Model.)

3 Sheets—Sheet 1.

J. SHANNON.
GRAINED SOFT WOOD.

No. 466,376.

Patented Jan. 5, 1892.

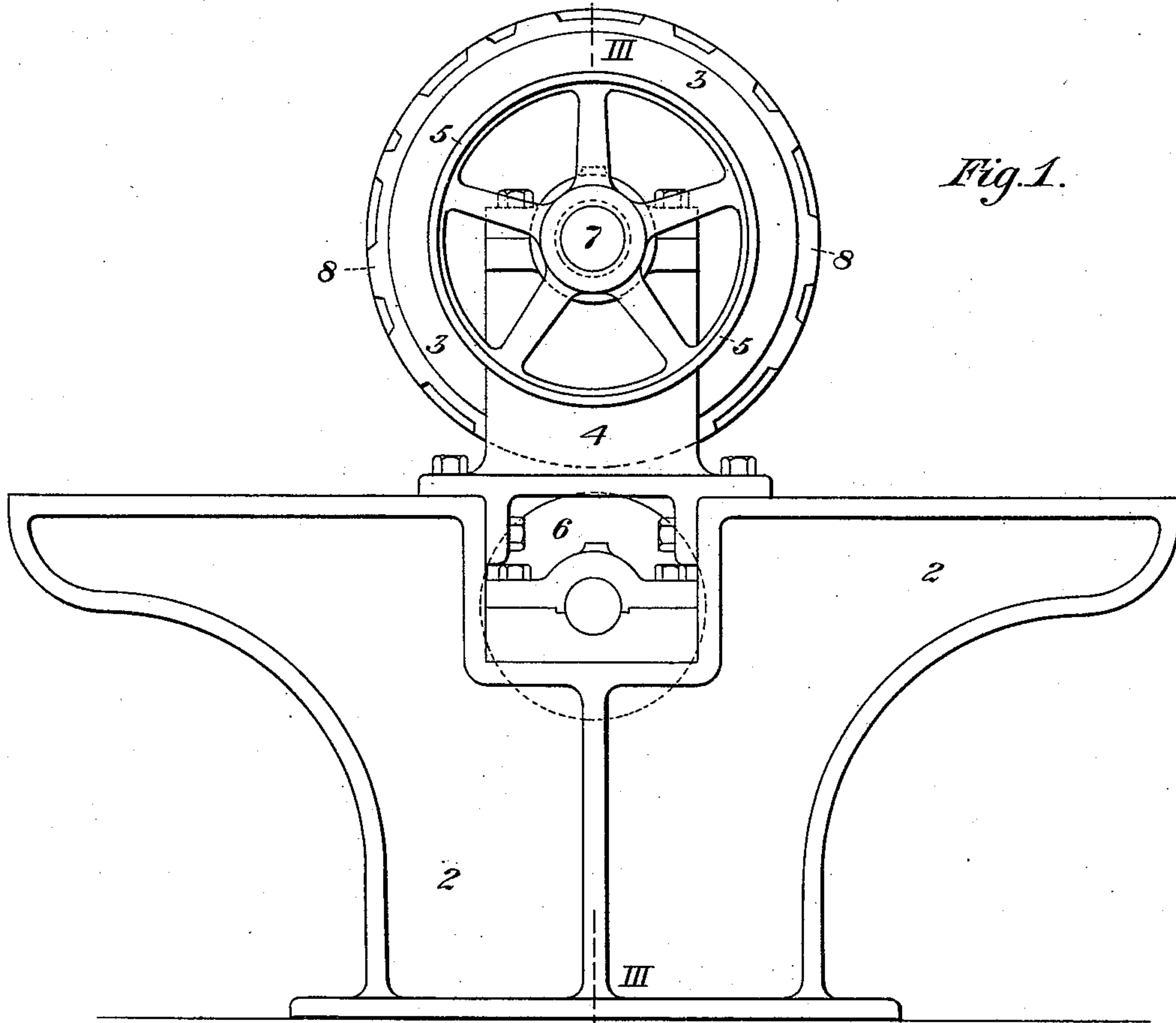


Fig. 1.

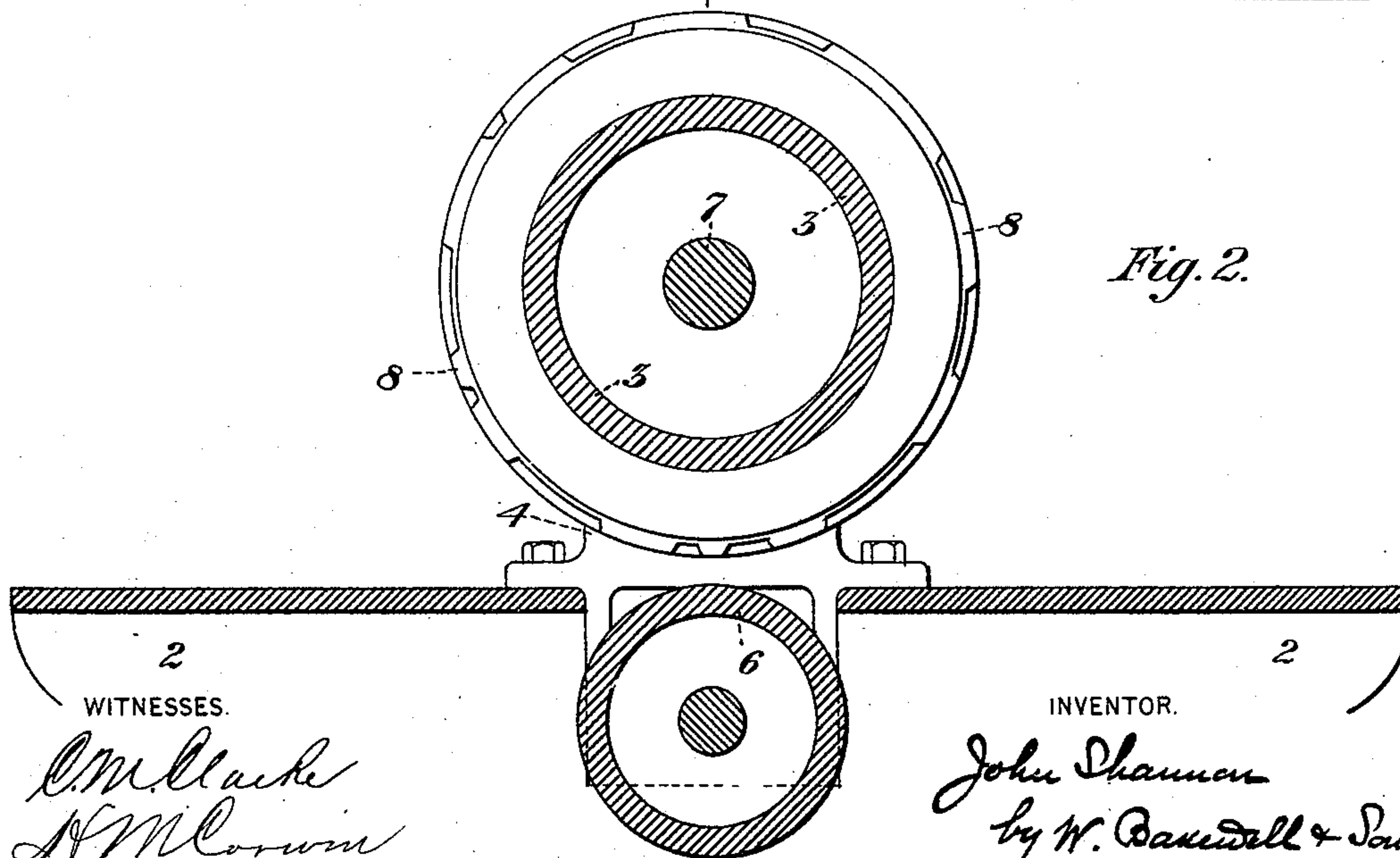


Fig. 2.

WITNESSES.

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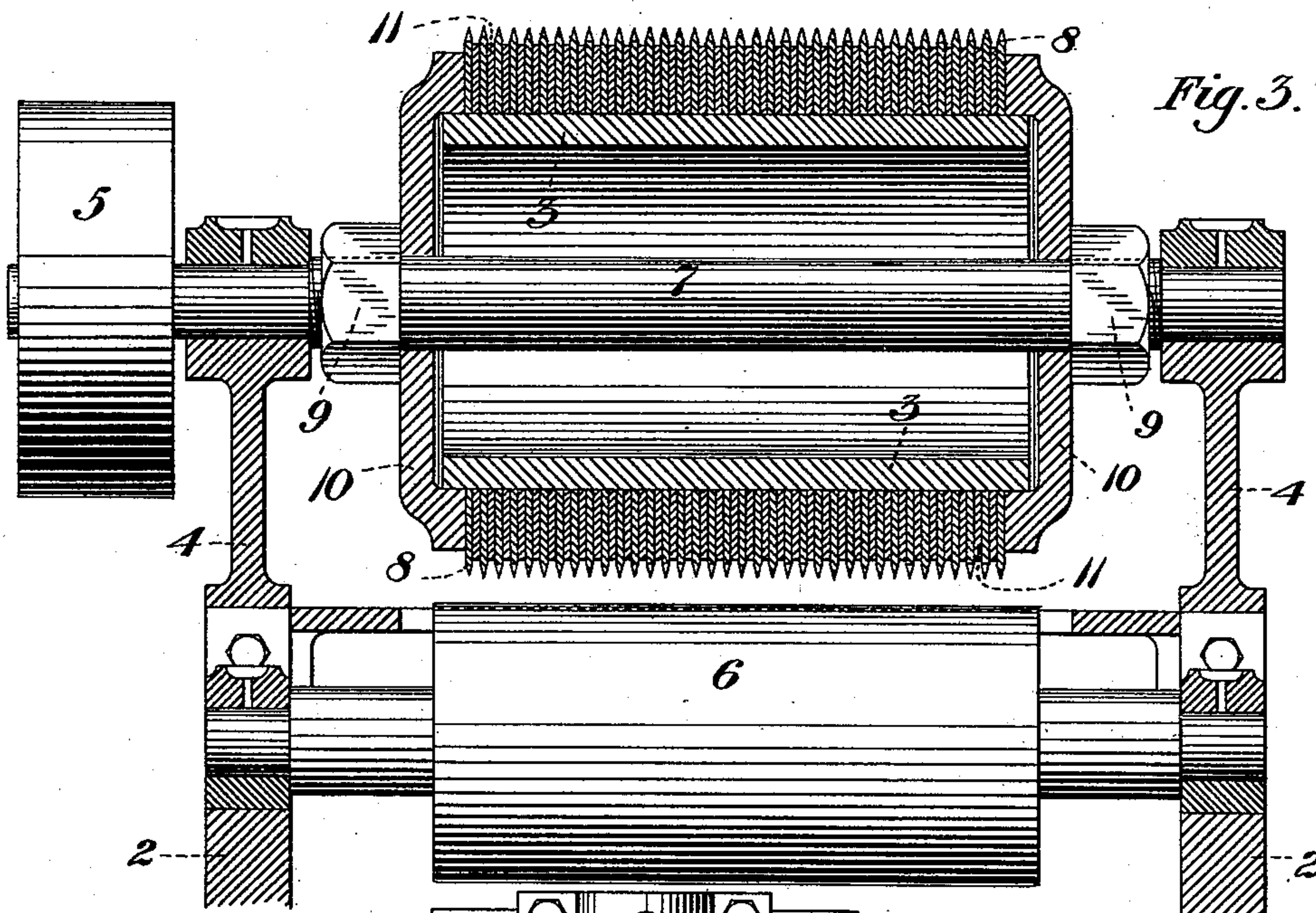


Fig. 3.

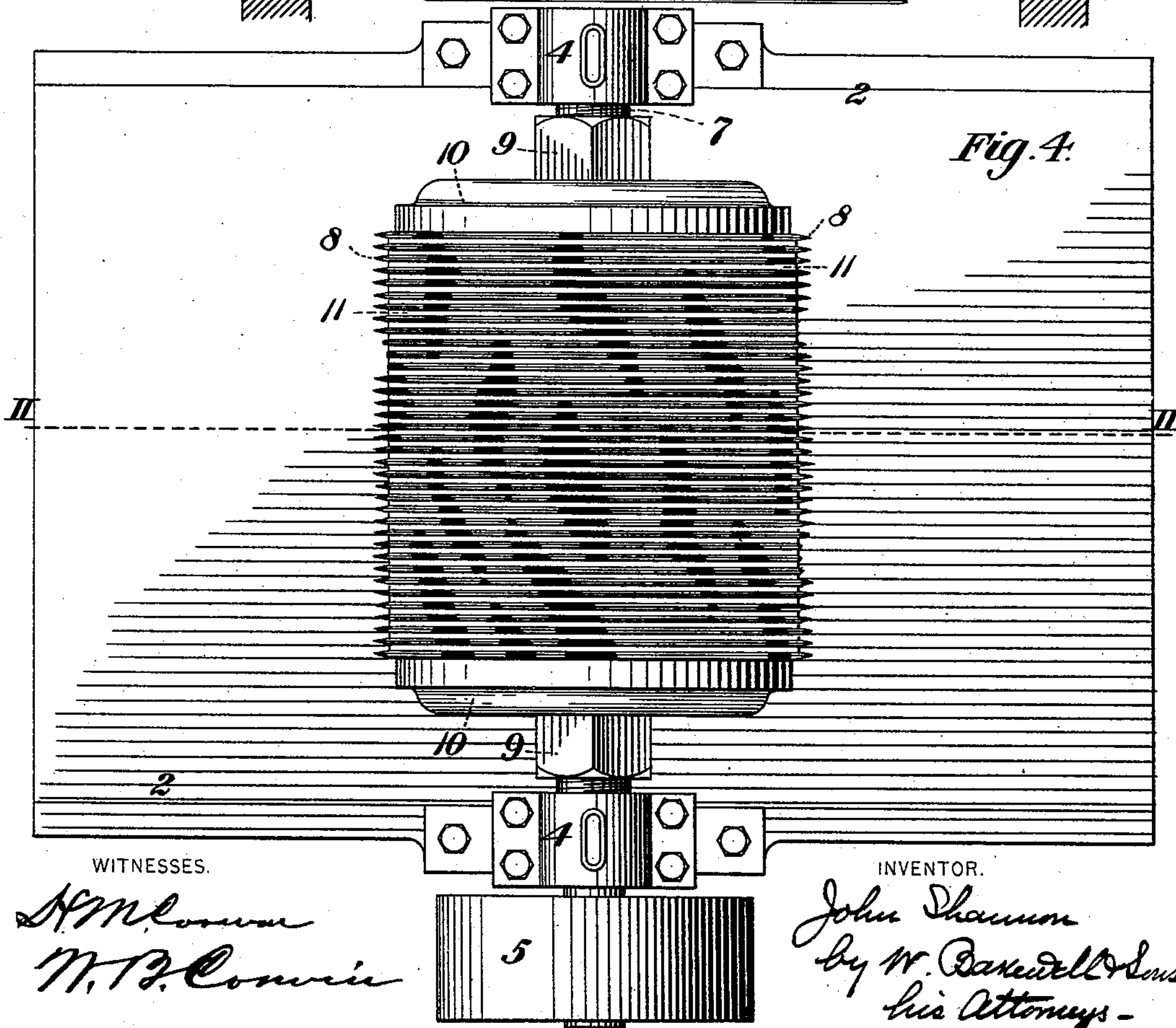


Fig. 4.

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3 Sheets—Sheet 3.

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Fig. 5.

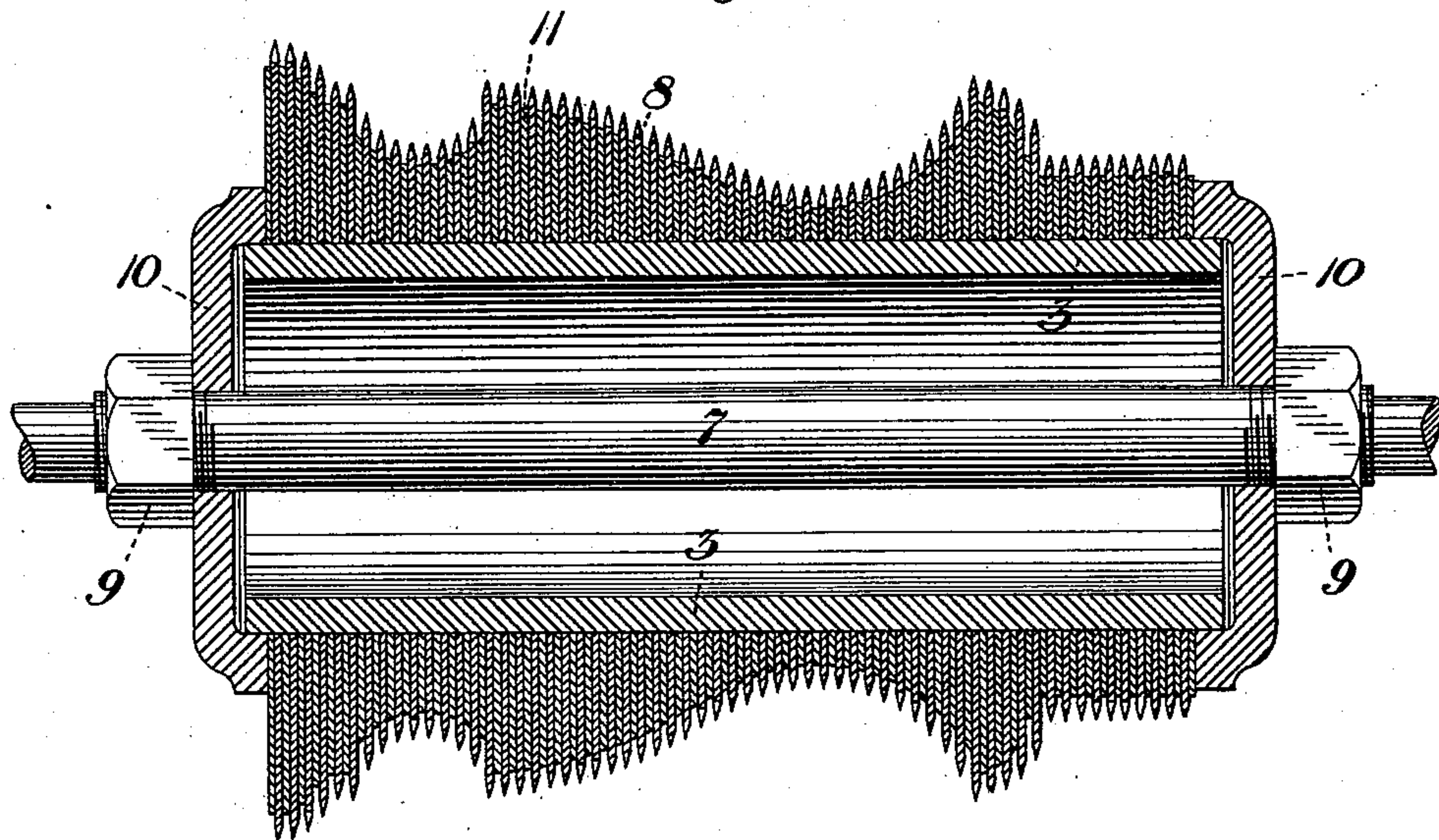


Fig. 6.

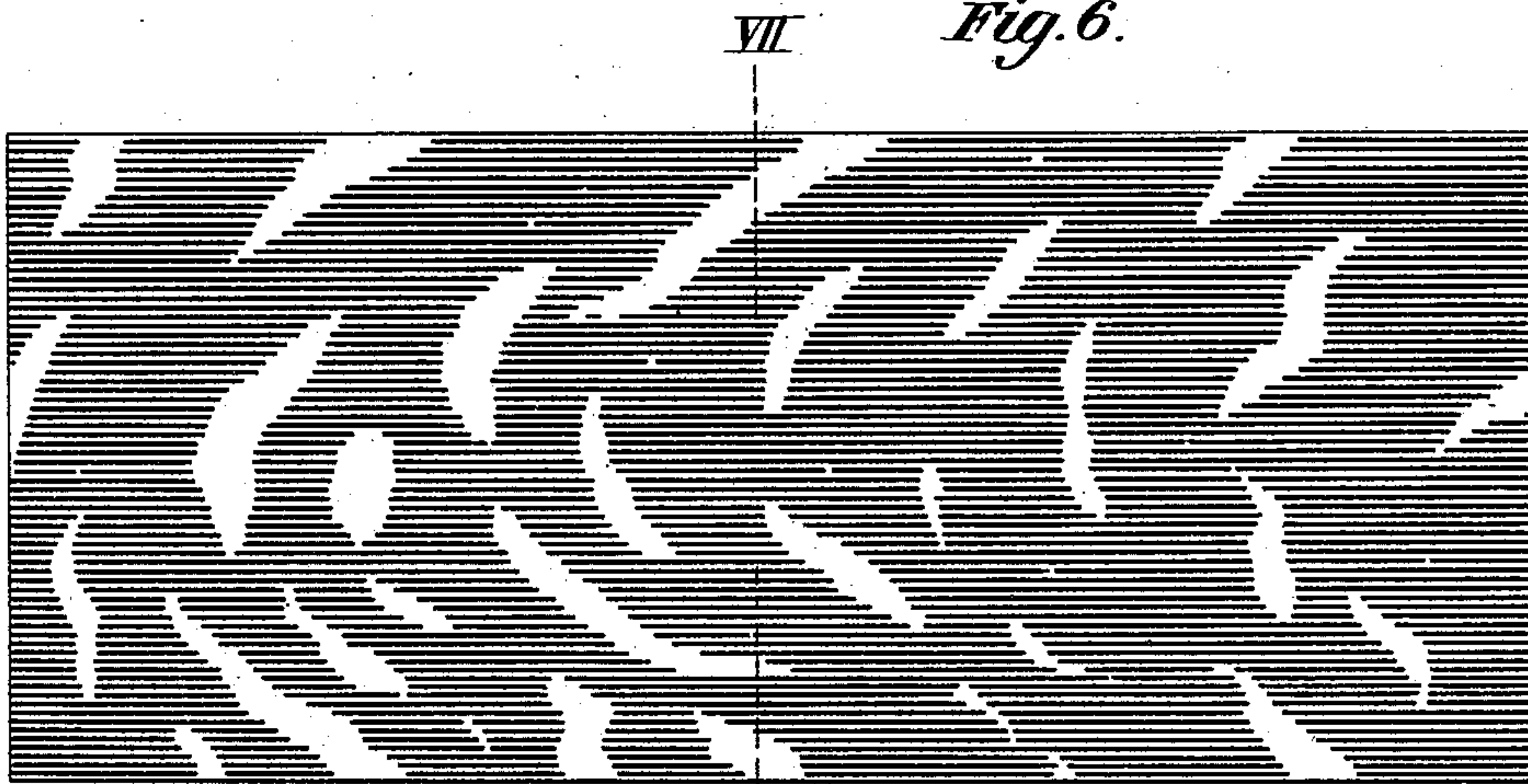


Fig. 7.



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UNITED STATES PATENT OFFICE.

JOHN SHANNON, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO HIMSELF
AND PETER CASEY, OF SAME PLACE, AND WILLIAM W. GRIER, OF
HULTON, PENNSYLVANIA.

GRAINED SOFT WOOD.

SPECIFICATION forming part of Letters Patent No. 466,376, dated January 5, 1892.

Application filed January 30, 1891. Serial No. 379,647. (No specimens.)

To all whom it may concern:

Be it known that I, JOHN SHANNON, of
Pittsburg, in the county of Allegheny and
State of Pennsylvania, have invented a new
5 and useful Improvement in Grained Soft
Wood, of which the following is a full, clear,
and exact specification, in which—

Figure 1 is a side view of a machine adapted
to the manufacture of my improved product.
10 Fig. 2 is a vertical section thereof, the section
being on the line II II of Fig. 4. Fig. 3 is a
vertical section on the line III III of Fig. 1.
Fig. 4 is a plan view of the machine. Fig. 5
is a sectional view of an indenting-roller of
15 modified construction. Fig. 6 is a plan view
of an indented and filled board. Fig. 7 is a
vertical section on the line VII VII of Fig. 6.

Like symbols of reference indicate like
parts in each.

20 The object of my invention is to make it
possible to produce on soft wood an imitation
not only of the surface appearance of hard
wood, such as oak, ash, chestnut, &c., but to
impart to the surface the characteristic quali-
25 ties of hardness, denseness, and strength
which pertain to the hard wood.

In treating wood in accordance with my in-
vention I take a piece of soft wood—such as
pine, poplar, hemlock, or other woods possess-
30 ing the peculiar characteristics appertaining
to wood of the class known to the art as “soft
wood”—and by means of suitable apparatus I
produce on its surface series of numerous
small indentations or cuts extending in the
35 line of the grain of the wood and placed near
to each other in such position as to imitate
closely the peculiar arrangement of the sur-
face pores forming the growth or pattern of
the wood desired to be simulated. The depth
40 of these cuts is preferably about one-six-
teenth of an inch, more or less. When the
board has been treated thus, I apply to its sur-
face a coating of mineral filler, (hereinafter
more fully described,) which may be defined as
45 a paste compounded of oil and a mineral sub-
stance, with color to conform to the color of
the wood to be imitated. The filler is rubbed
or pressed into the artificial surface pores of
the wood, so as to fill the same, and the sur-
50 plus is scraped or rubbed off from the board's
surface as much as possible. The filler is of

such composition that it will harden and set
in the artificial pores, producing on the wood's
surface a mosaic composed of a great number
of stony plugs firmly embedded in the wood 55
in close proximity to each other. This brings
out the ornamental pattern clearly and beau-
tifully, and because of the hard nature im-
parted to the surface of the wood it makes it
hard and durable, practically as much so as 60
the surface of true hard wood itself. The wood
thus treated may then be polished or other-
wise worked to adapt it to the use to which
it is to be put.

The advantage which I derive from my in- 65
vention is that I get a board which because
of the soft nature of its base can be worked
and cut without the labor and expense re-
quired in fitting hard wood, while by reason
of the induration of its surface it affords all 70
the advantages of denseness, beauty, and sus-
ceptibility of high polish appertaining to the
best hard woods.

A suitable mineral filler is made according
to the following formula: Corn-starch, three 75
parts; pumice-stone, one part; silver-whiting,
six parts. These ingredients are ground and
mixed with oil and turpentine to form a paste.

Other suitable filling materials having a
mineral base may be used, since my invention 80
is not limited to any particular kind of filler
further than that it must be a mineral filler
capable of hardening and setting in the pores
of the wood.

Referring now to the drawings, 2 represents 85
the frame of a machine adapted to indent
boards for the manufacture of my improved
product. 3 is the indenting-roller, journaled
in suitable standards 4 and adapted to be ro-
tated by a belt-pulley 5, and 6 is a support- 90
ing-roller journaled below the roller 3. The
indenting-roller is composed of a cylindrical
shell set on a central shaft 7 and provided
with a series of encircling steel bands or
rings 8, formed with indenting-teeth so situ- 95
ate relatively to each other as to impress
on a board passed beneath the roller in-
dentations arranged in proper order to pro-
duce a grain-pattern on the surface there-
of. The teeth may be formed by acid-etch- 100
ing, as described in my prior patent applica-
tion, Serial No. 350,748, filed May 6, 1890, or

the roller and teeth may be otherwise formed, since their construction and the mode of forming the indentations do not form features of limitation of my present invention.

5 When the board is passed between the rollers 3 and 6, indentations are pressed on it, as shown in Fig. 6. In Fig. 7 I show these indentations filled with the plugs of mineral filler above described. In this figure the proportional size and intervening distance between the indentations are somewhat exaggerated for better illustration.

10 In Fig. 5 I show an indenting-roller of longitudinally-curved peripheral outline adapted to indent moldings of corresponding shape in cross-section.

I claim—

As a new article of manufacture, wood having a natural soft body and an indurated surface comprising series of closely-adjacent stony plugs of mineral paste set in artificial indentations arranged in proper order to simulate the natural surface appearance of hard wood, substantially as and for the purposes described. 20

In testimony whereof I have hereunto set my hand this 26th day of January, A. D. 1891. 25

JOHN SHANNON.

Witnesses:

THOMAS W. BAKEWELL,
W. B. CORWIN.