

S. W. Wood
Felting Machine.

Nº 20602

Patented Jun. 15, 1858.

Fig. 1

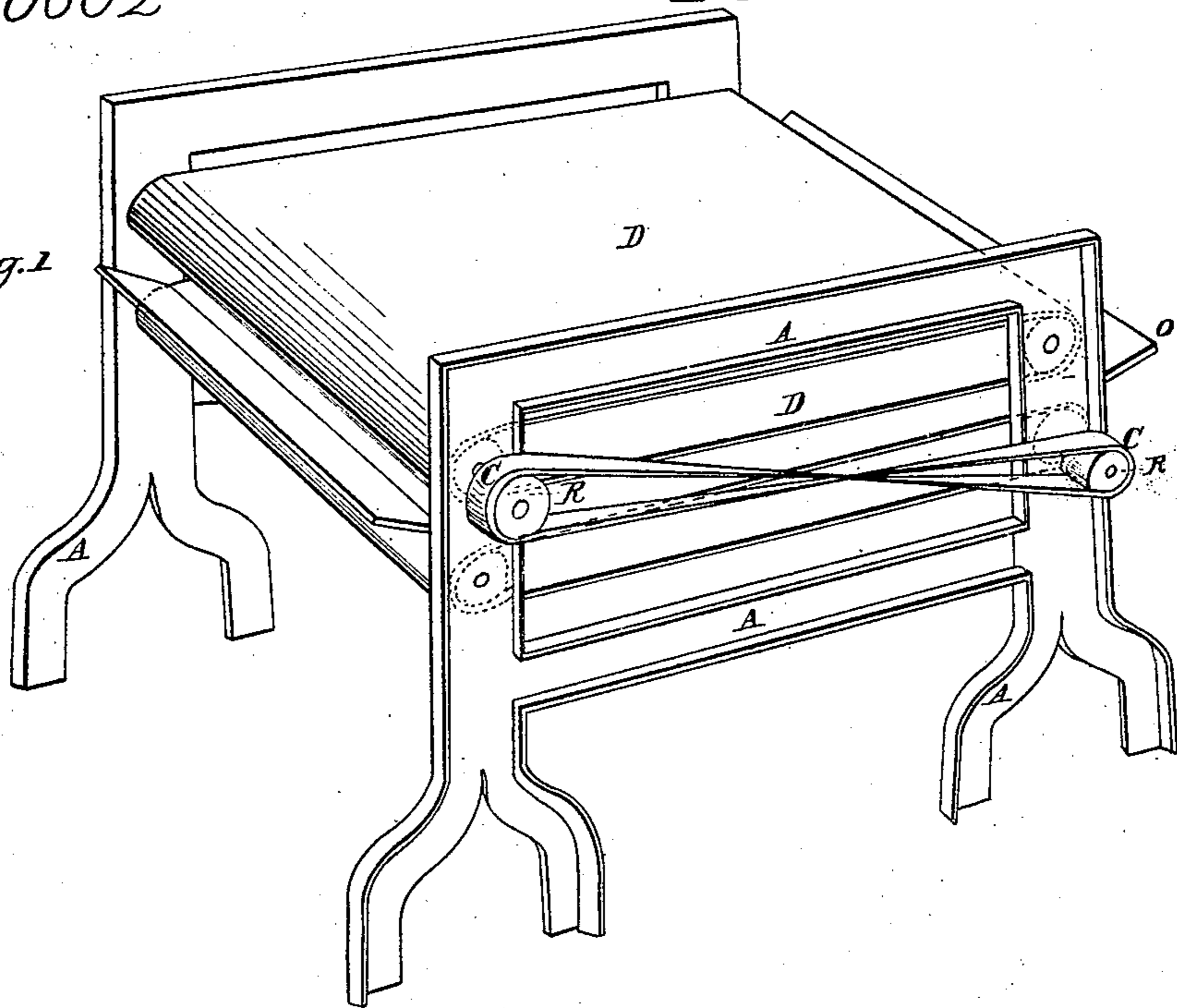
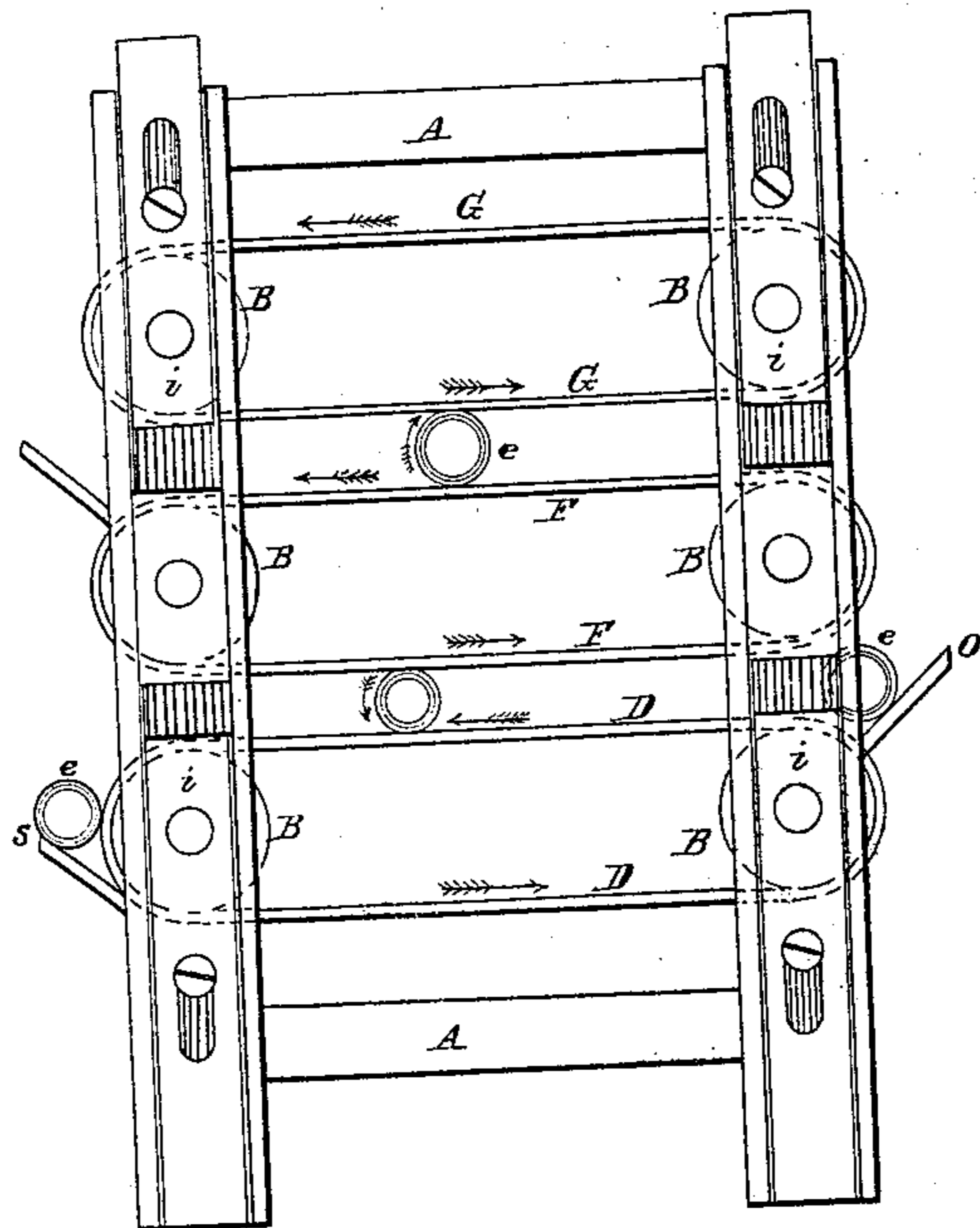


Fig. 2



UNITED STATES PATENT OFFICE.

S. W. WOOD, OF WASHINGTON, DISTRICT OF COLUMBIA.

MACHINE FOR SIZING HAT-BODIES.

Specification of Letters Patent No. 20,602, dated June 15, 1858.

To all whom it may concern:

Be it known that I, S. W. Wood, of the city of Washington and District of Columbia, have invented certain new and useful
5 Improvements in Mechanism for Sizing or Planking Hat-Bodies, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification,
10 in which—

Figure 1, represents a view in perspective. Fig. 2, is a side elevation showing the adjustable journal boxes. Fig. 3 is a side elevation of a modified form with a stationary
15 casing.

The nature of my invention consists in sizing or planking hat bodies by rolling the bat continuously forward between endless belts running in opposite directions, with
20 different and variable speeds.

Like letters indicate similar parts in all the figures.

To enable others skilled in the art to make and use my improved mechanism for sizing
25 or planking hat bodies, I will proceed to describe the same in detail.

A in the accompanying drawings represents the frame constructed of metal or wood, and of any required size and form.
30 In this frame are arranged any number of adjustable rollers (B) over which endless belts (D) operate; these belts are of any suitable material but for the benefit of those who may use their invention I would name
35 coarse linen as being peculiarly adapted, which will resist without shrinking or stretching, hot water into which the bodies are frequently immersed during the process of sizing or planking. These endless belts
40 may be operated by bands (C) and pulleys (R), the bands being so arranged as to operate the two corresponding belts in opposite directions. In order that the bat (e) may be carried from the end where it is introduced and discharged at the opposite end,
45 the pulleys (R) vary in size which imparts to the endless belts, between which the bat passes, variable velocities, which causes the

bat to roll or travel from end to end of the belts. The difference in the velocities of
50 these endless belts may be governed by cone pulleys, according to the amount of work necessary to give different kinds of material.

Fig. 2, represents a machine consisting of three endless belts, the middle belt (F) being
55 stationary in its bearings while the upper belt (G) and the lower belt (D) are adjustable by means of sliding journal boxes (i); these belts are rendered adjustable so that any sized bat may pass between desired. In
60 Fig. 2, the upper belt (G) and lower belt (D) run with equal velocity, while the middle belt (F) varies by having a slower motion; the exact arrangement of these belts and their velocities is of no consequence, so
65 long as the bat rolls or travels from end to end and is discharged from the opposite end at which it was introduced.

The operation of the three endless belts, as represented in Fig. 1, is as follows. The
70 bat (e) is introduced between the upper and middle belts (G) and (F) and is rolled from left to right and discharged upon the board (o) where the bodies are examined if necessary, when the bat (e) is introduced be-
75 tween the middle and lower belts (F) and (D) rolling between them and discharged (S). This operation is repeated until the bodies are sized or planked. The arrows in red represent the direction of the bats, and
80 the arrows in black show the direction the belts are moving.

Having thus fully described my improved mechanism for sizing or planking hat bodies, what I claim therein as new and desire
85 to secure by Letters Patent is—

Sizing or planking hat bodies, by rolling the bat continuously forward, that is to say, in one direction between endless belts running in opposite directions and at different
90 or variable velocities, as herein specified.

S. W. WOOD.

Witnesses:

WM. C. MILLER,

GEORGE W. POWELL.