

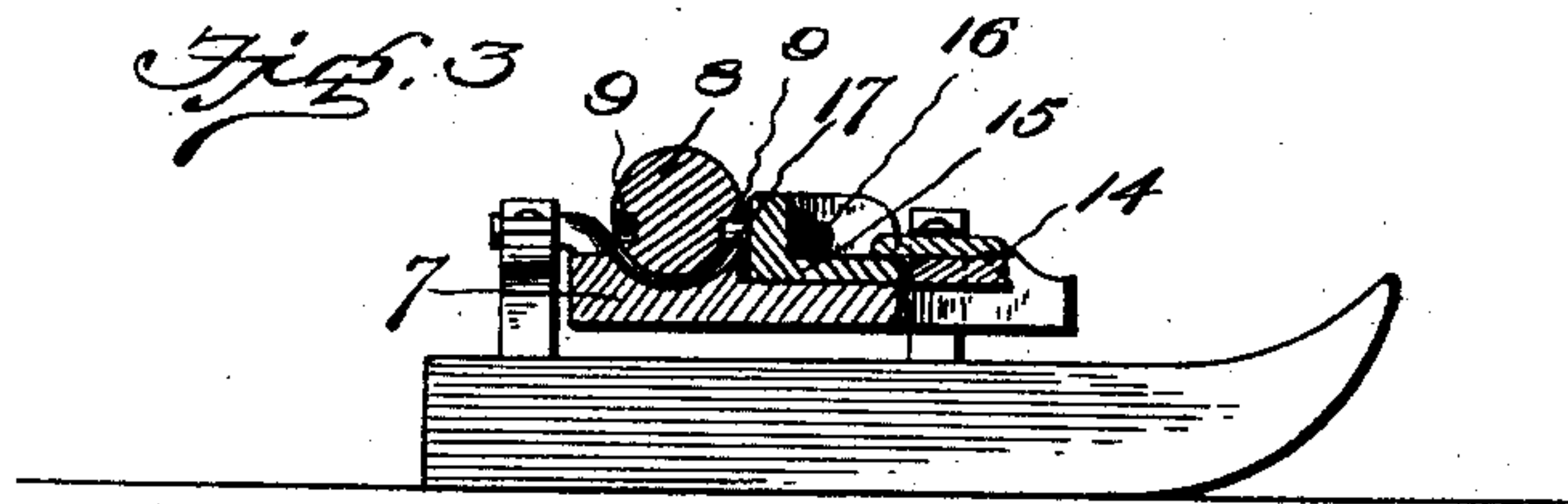
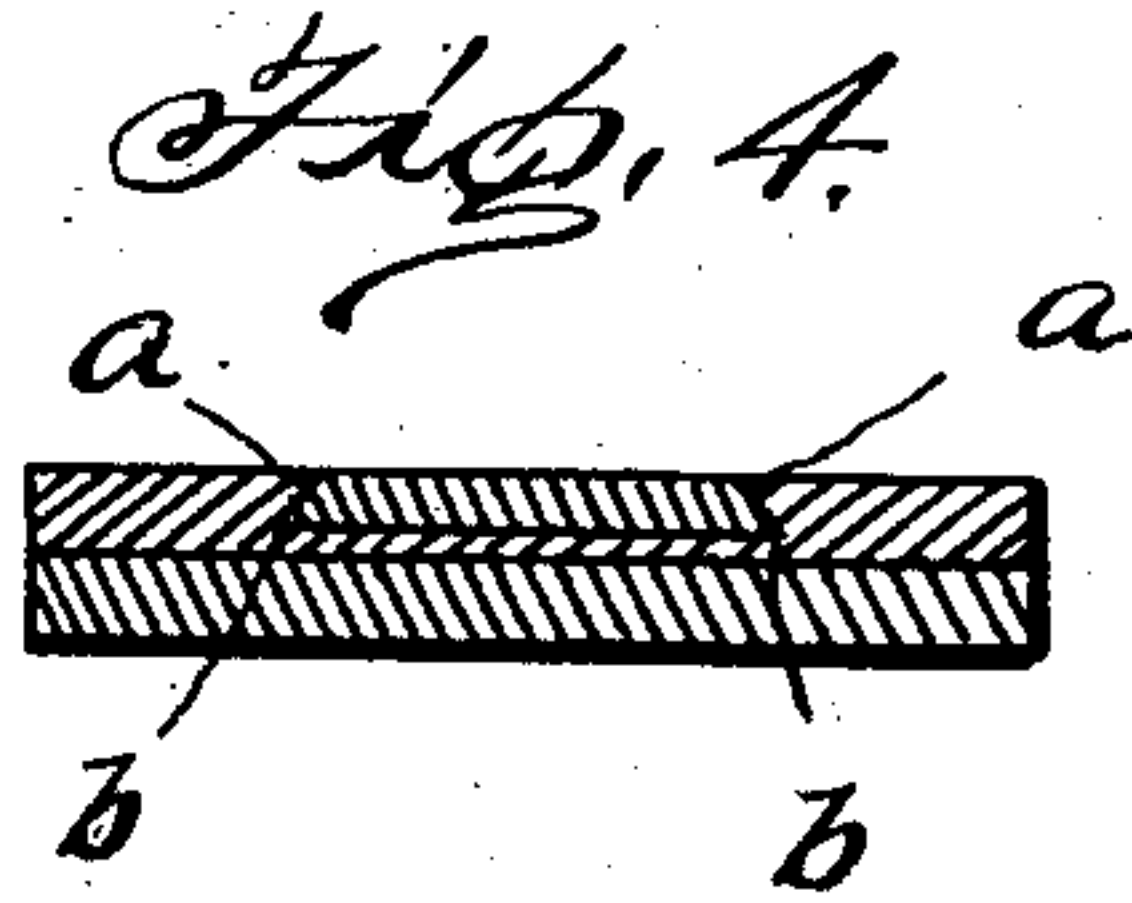
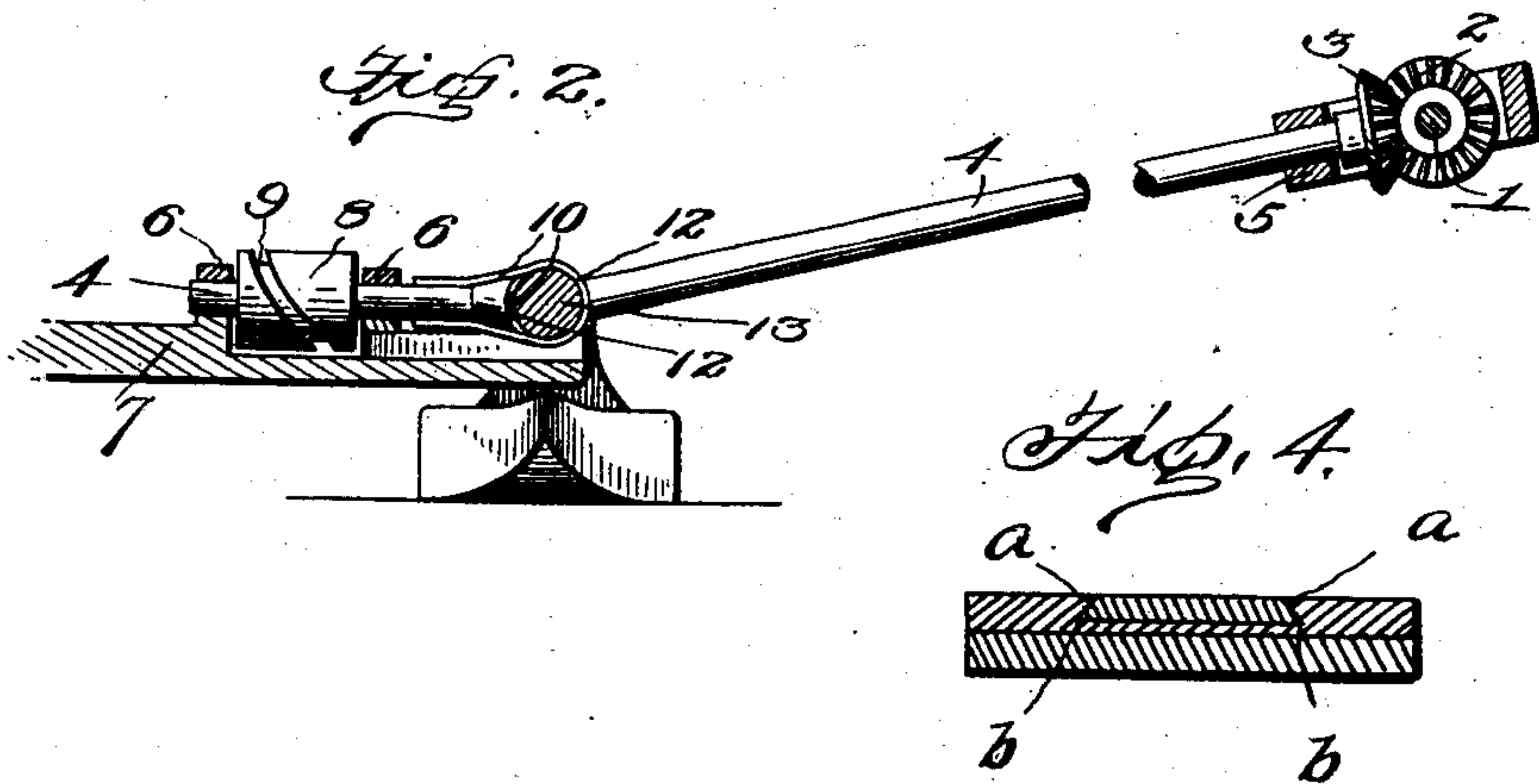
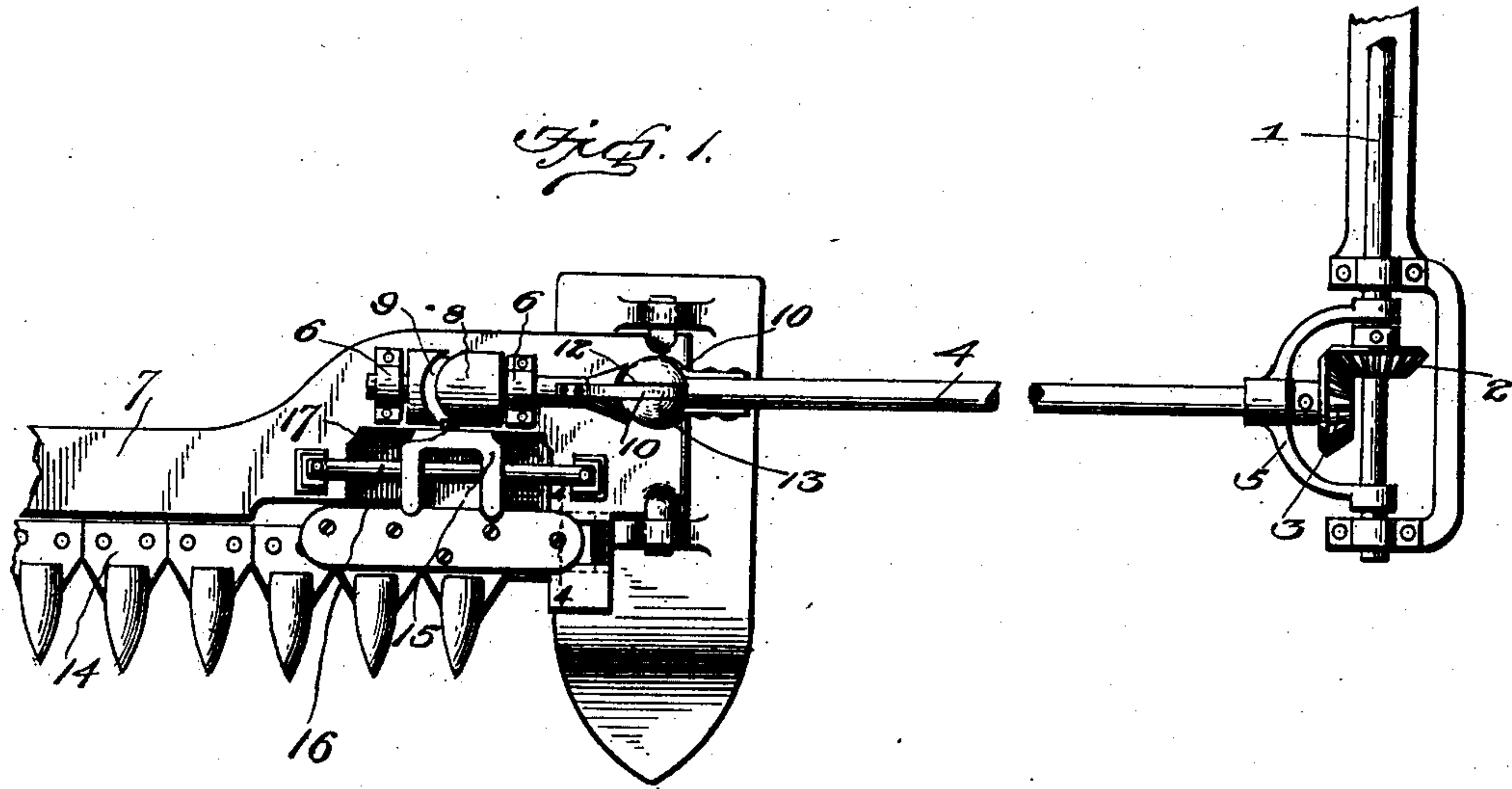
No. 753,697.

PATENTED MAR. 1, 1904.

J. T. GILLASPY.
MOWING MACHINE.

APPLICATION FILED AUG. 6, 1902. RENEWED NOV. 9, 1903.

NO MODEL.



Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

JOHN THOMAS GILLASPY, OF UNION, OREGON, ASSIGNOR OF ONE-THIRD
TO CHARLES WILLIAM MICHAEL AND WILLIAM SULLIVAN, OF SUM-
TER, OREGON.

MOWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 753,697, dated March 1, 1904.

Application filed August 6, 1902. Renewed November 9, 1903. Serial No. 180,479. (No model.)

To all whom it may concern:

Be it known that I, JOHN THOMAS GILLASPY, a citizen of the United States, residing at Union, in the county of Union and State of Oregon, have invented certain new and useful Improvements in Mowing-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
10 pertains to make and use the same.

This invention relates to new and useful im-
provements in mowing-machines.

The object of the invention is to provide an improved means for reciprocating the cutter-
15 bar of a mowing-machine.

A further object is to do away with the or-
dinary pitman and with the resulting jar and racking of the machine produced by such pit-
man, thereby enabling a much lighter con-
20 structed machine to be produced than are now in use.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement
25 of parts, which will be hereinafter more fully described, and particularly pointed out in the appended claims.

Figure 1 is a top plan view of a portion of a mowing-machine, showing the application
30 of the invention. Fig. 2 is a vertical longitudinal section through the flexible shaft. Fig. 3 is a vertical cross-section through the cutter-bar head and cam-roller, and Fig. 4 is an enlarged detail section on line 4 4 of Fig. 1.

Referring to the drawings, 1 denotes the main drive-shaft, which is geared at one end to the drive or supporting wheels of the machine and suitably supported by the frame-
work thereof. On this shaft is fixed a bevel
40 gear-pinion 2. 3 denotes a similar beveled gear-pinion in mesh with the pinion 2 and fixed on the end of a flexible shaft 4, journaled in a swinging bearing-bracket 5, which has a hinged connection with shaft 1, as shown.
45 The outer end of the flexible shaft 4 is journaled in bearings 6 on the head of the finger-bar 7 of the cutting apparatus. 8 denotes a cylindrical enlargement or roller fixed on the shaft 4 between the journal-boxes 6, and in

this roller is formed a cam-groove 9. Adja- 50
cent to its point of connection with the finger-
bar the shaft 4 is divided into two sections or
lengths, and on the contiguous ends of the sec-
tions are attached loops 10, arranged in planes
at right angles to each other and adapted to 55
engage similarly-arranged grooves 12, formed
in a ball 13, by which construction it will be
seen that the shaft may be rotated when at va-
rious angles.

The head of the finger-bar 7 is hinged to the 60
shoe of the machine in any suitable manner,
but preferably by means of trunnions formed
on the finger-bar head and engaging bearings
formed on the said shoe. This hinged con-
nection between the cutter-bar and the shoe 65
being directly in line with the joint or knuckle
in the shaft 4, the parts will thereby be per-
mitted to swing or move in unison.

14 denotes the sickle-bar, having a laterally-
projecting head 15, which is adapted to slide 70
in a groove or way formed on the head of the
finger-bar and to be guided in its reciprocating
movement by a rod or bar 16, passing
through guide-openings formed in the sickle-
bar head 15, the said rod being connected at 75
its ends to offsets formed on the head of the
finger-bar. The sickle-bar is further guided
in its reciprocating movement by having the
extreme end thereof formed with dovetailed
grooves *a* along its edges, which are engaged 80
by similar-shaped guides *b*, formed on the
finger-bar head.

17 denotes a pin or lug formed on the side
of the sickle-bar head adjacent to the roller 8,
the said pin being adapted to enter the cam- 85
groove and to be reciprocated by the rotation
of said grooved roller and to impart such re-
ciprocating movement to the sickle-bar of the
machine.

Suitable casings (not shown in the draw- 90
ings) may be employed to protect the work-
ing parts from dirt and obstructions.

In the herein-described construction it will
be seen that I have entirely done away with
the use of a pitman-rod and all the undesir- 95
able effects resulting from the use of a pit-
man-rod and have substituted therefor a sim-
ple construction which will do the work in a

more reliable and efficient manner and with less jar and rack of the machine, the wedging action of the cam-groove having been found to be more effective than the push-and-pull motion of the old-style pitman-rod.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of the invention will be readily understood without requiring an extended explanation.

Various changes in the form, proportion, and details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a mowing-machine, the combination with a finger-bar, of a reciprocating sickle-bar having a pin or lug, a shaft composed of two sections connected by a universal joint, a roller fixed to one end of said shaft and provided with a cam-groove adapted to receive the pin or lug on said sickle-bar, a main drive-shaft

disposed at right angles to said flexible shaft, a bearing yoke or bracket hinged directly upon said main drive-shaft and supporting said jointed shaft at its opposite end, and gearing for imparting motion from said drive-shaft to said jointed shaft, substantially as described.

2. The combination with a supporting-shoe, of a finger-bar hinged thereto, a two-part shaft, one part of which is carried by said finger-bar, a universal joint connecting the parts of said shaft above the hinge connection of said finger-bar to permit the latter to swing up in the plane of the hinge connection of the finger-bar with the shoe, a reciprocating sickle-bar, means for transmitting motion from said two-part shaft to said sickle-bar, and a main drive-shaft geared to said two-part shaft to rotate the same, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN THOMAS GILLASPY.

Witnesses:

SAM. R. STOTT,
JNO. S. ENNIS.