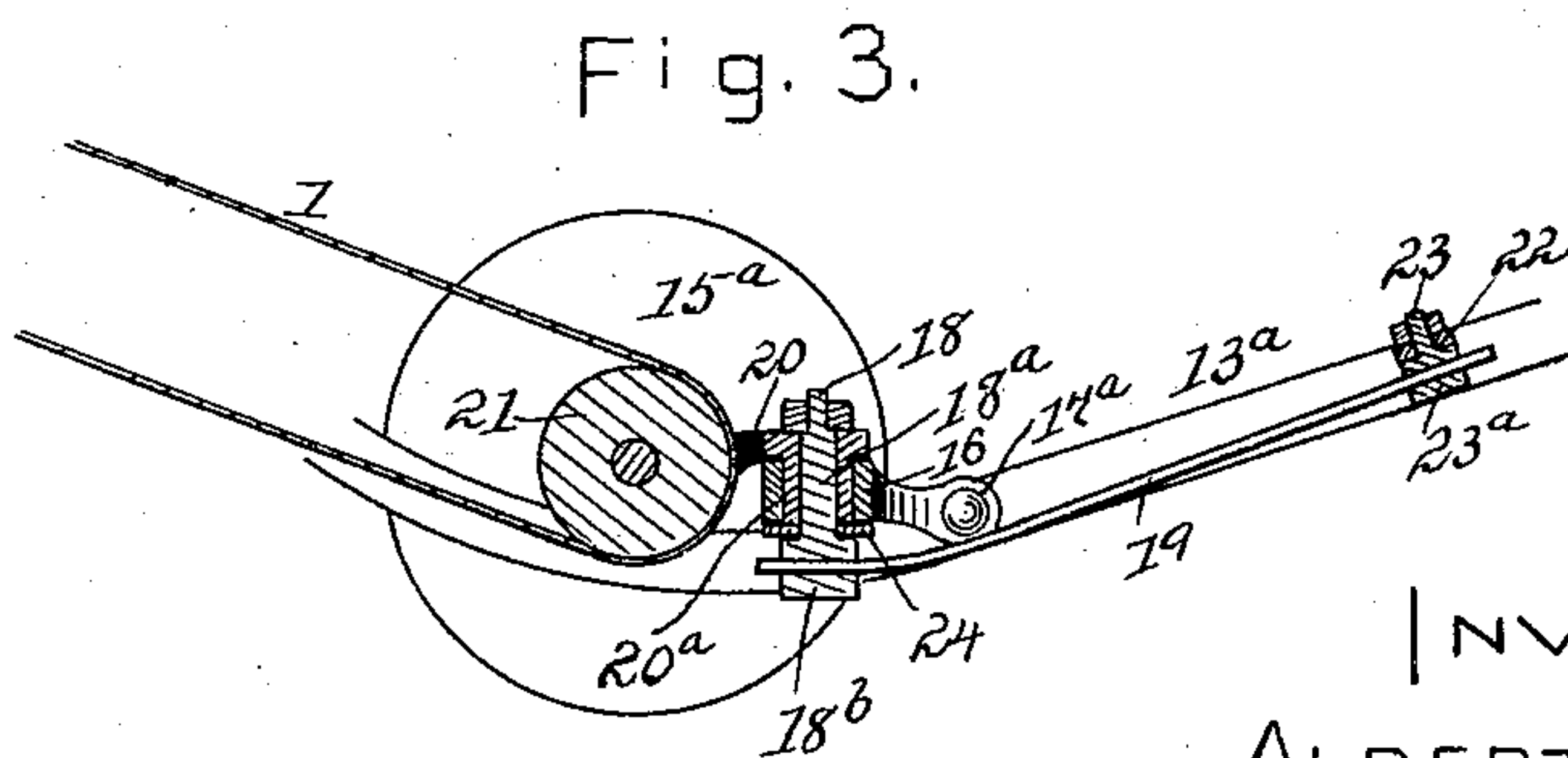
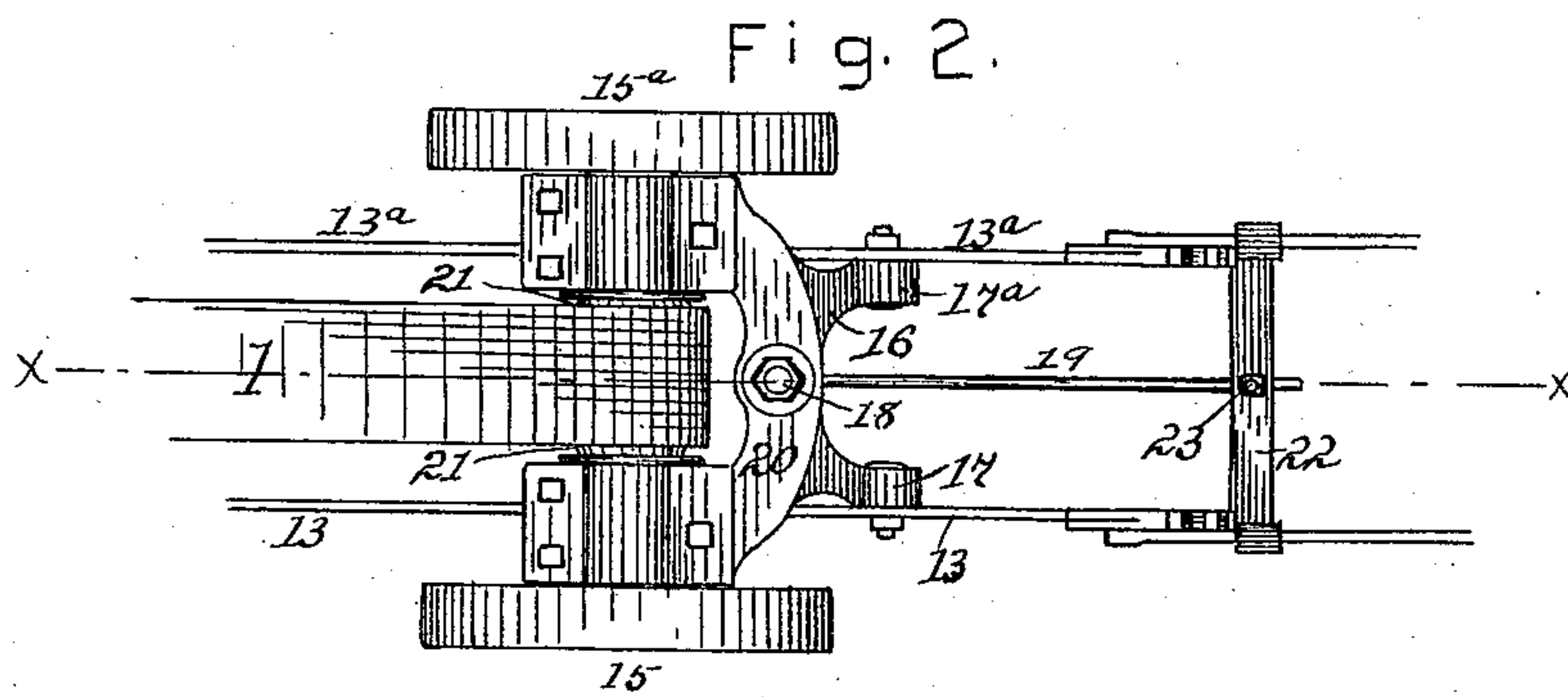
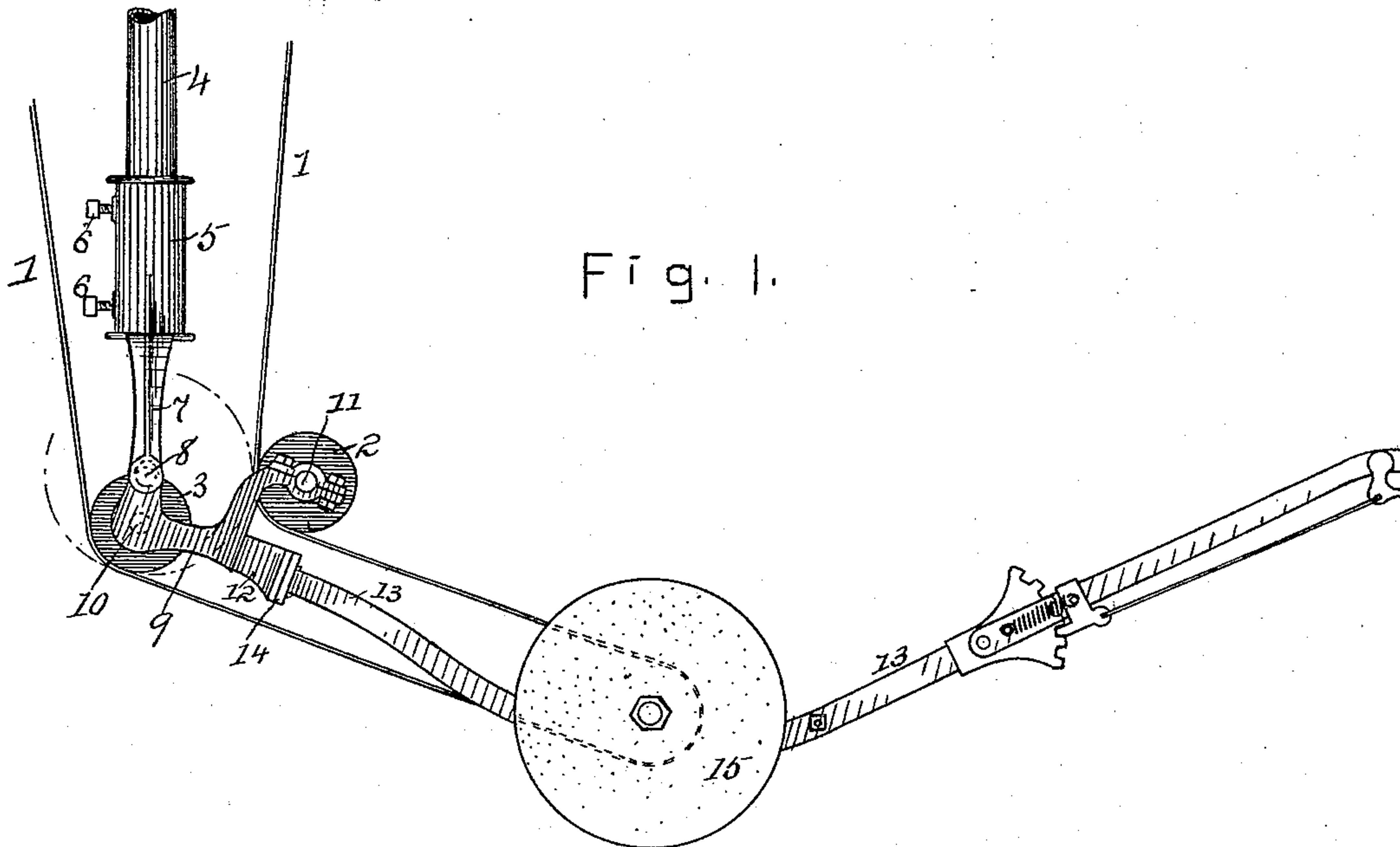


(No Model.)

A. MANECKE.
GRINDING AND POLISHING MACHINE.

No. 479,822.

Patented Aug. 2, 1892.



ATTEST

Helen Graham

William Graham

INVENTOR
ALBERT MANECKE

by his attorney
L. P. Graham

UNITED STATES PATENT OFFICE.

ALBERT MANECKE, OF CERRO GORDO, ILLINOIS.

GRINDING AND POLISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 479,822, dated August 2, 1892.

Application filed October 10, 1891. Serial No. 408,351. (No model.)

To all whom it may concern:

Be it known that I, ALBERT MANECKE, of Cerro Gordo, in the county of Piatt and State of Illinois, have invented certain new and useful Improvements in Grinding and Polishing Machines, of which the following is a specification.

This invention is in the nature of an improvement on the device set forth in Letters Patent of the United States No. 439,300, granted to me on the 28th day of October, 1890, for a grinding and polishing machine. It relates to the manner of getting power to the grinding-wheels, to the means employed to obtain yielding adjustment in such wheels, and to the manner of tightening the belt.

It consists in the details of construction and combinations of parts hereinafter set forth and claimed.

In the drawings accompanying and forming a part of this specification, Figure 1 is a side elevation of my device, illustrating the manner of running a single belt from the counter-shaft to the shaft of the grinding-wheels and showing the means for tightening the belt. Fig. 2 is a plan of the grinding-wheels and bearings; and Fig. 3 is a section on broken line *x* in Fig. 2, the two last figures being illustrative of the means employed to obtain yielding adjustment of the wheels.

The belt 1 extends from the drive-pulley on the counter-shaft around idlers 2 and 3 to the pulley 21 of the shaft of the grinding-wheels. The hanger 4 depends from the counter-shaft and sustains sleeve 5, which is adjustably secured to the hanger by means of set-screws 6, and which has the bracket 7, adapted to embrace the swinging frame of the grinding device. Frame 9 pivots at 8 in bracket 7. It extends downward to 10, where it provides bearings for the shaft of idler 3, and thence upward and backward to shaft 11 of idler 2, where it provides boxing for such shaft. Block 12 is rigidly secured to frame 9 and is pivotally connected with plate 14. Side bars 13 and 13^a are secured to plate 14 and extending rearwardly beyond the wheels connect with or form manipulating-handles. Frame 16 is pivotally connected at 17 and 17^a, respectively, with side bars 13 and 13^a. Yoke 20 has a cir-

cular boss 20^a on its under surface, which extends through a corresponding hole in frame 16 and which has a square or angular hole through its axis. Bolt 18 has the square or angular part 18^a, adapted to the hole in the boss, and also has the upper threaded part provided with a nut. The head 18^b of the bolt is enlarged and is provided with a transverse hole. Washer 24 fits against the boss and extending beyond the sides of the same secures the yoke and the frame together. Cross-bar 22 extends from one side bar to the other and has at its center a rigidly-secured bolt 23, which has the bored head 23^a. Spring-rod 19 has one end extending through the head of bolt 18 and the other end through the head of bolt 23 and its tendency is to hold the yoke in the position shown in Fig. 2, with the boxing of the wheel-shaft resting on the side bars. The grinding-wheels 15 and 15^a are carried by the yoke and when either of the wheels is pressed against a surface not parallel with its face the spring-rod will yield upward or to either side, as may be required, and so adapt the wheel to the surface so long as the pressure is maintained. The idlers 2 and 3 have such relation to pivot 8 that the inner periphery of the one and the outer periphery of the other are always equidistant from the pivot whatever may be the position of the grinding-frame, (see the circle in broken lines in Fig. 1,) and as a result one idler takes up what the other loses when the grinding-frame is swung up or down, thus keeping the belt at a uniform tension. When the belt needs tightening, the set-screws 6 are loosened and the weight of the grinding-frame is employed to draw the belt to the desired tension. When this is done, the screws are reset to make the position permanent.

The improvements specified are designed to coact with a machine having the general features set forth in the above-mentioned patent, except that I prefer to substitute a crown-pulley for the flanged pulley on the main shaft.

I claim—

1. In grinding and polishing machines, the combination of hanger 4, having bracket 7, frame 9, pivotally connected with the bracket and having idlers 2 and 3 so located that the

nearer surface of idler 2 and the farther surface of idler 3 are equidistant from the pivot, wheel-driving pulley 21, carried by side bars connected with frame 9, and belt 1, extending
5 around the pulley and bearing against the idlers, as set forth.

2. In grinding and polishing machines, the combination of the side bars having the manipulating-handles, the wheel-carrying frame
10 connected with the side bars in a manner permitting motion in different directions, and the spring tending to hold the wheel-carrying frame in a certain position relative to the side bars, as set forth.

15 3. In grinding and polishing machines, the combination of the side bars, the frame pivotally connected with the side bars, the yoke connected pivotally with the frame, and the

spring-rod connected with the side bars and with the yoke, as set forth. 20

4. The combination of the side bars, the frame pivotally connected with the side bars, the yoke carrying the wheels and having a boss extending through a hole in the frame, an angular bolt extended through a corresponding hole in the boss and connecting the
25 frame and yoke together, and a spring-rod extending through the head of the bolt and connecting with a cross-piece of the side bars, as set forth. 30

In testimony whereof I sign my name in the presence of two subscribing witnesses.

ALBERT MANECKE.

Attest:

HENRY PRUAN,
H. E. DICKEY.