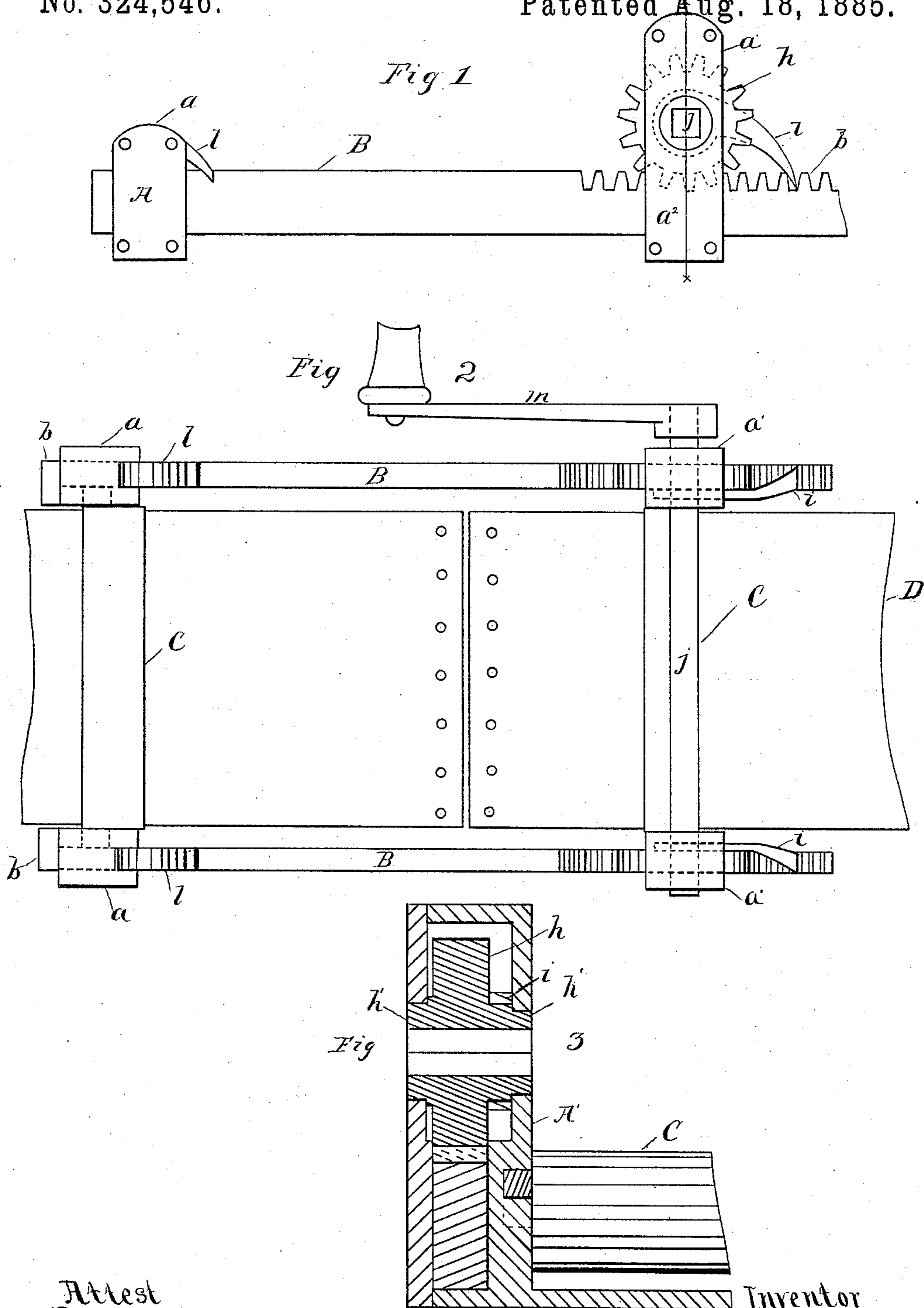


(No Model.)

J. T. FERTIG.
BELT CLAMP AND TIGHTENER.

No. 324,546.

Patented Aug. 18, 1885.



Attest
J. J. Hawks

Inventor
John T. Fertig
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UNITED STATES PATENT OFFICE.

JOHN T. FERTIG, OF DENVER, COLORADO.

BELT CLAMP AND TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 324,546, dated August 18, 1885.

Application filed February 24, 1885. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. FERTIG, a citizen of the United States, residing at Denver, in the county of Arapahoe and State of Colorado, have invented a new and useful Improvement in Belt-Tighteners, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in belt-tighteners, being an improvement on an invention described and claimed in an application filed by me in the United States Patent Office on the 5th day of January, A. D. 1885, said application having been allowed on the 26th day of the same month, the Letters Patent to bear date February 24, A. D. 1885, No. 312,989.

The object of my improvement is to provide a belt-tightener which shall be complete, simple, durable, and cheap, and at the same time superior to other similar inventions now in use. I attain this object by dispensing with the chain-fall mentioned in my former application and applying the power by means of a crank attached to a shaft which turns two cog-wheels, one on each end of said shaft, and working within the upright parts of one of the sliding blocks, the cogs of said wheels working in corresponding notches of the guide-rods. I dispense with the springs and catches attached to the sides of the upright parts of the blocks, said catches working in notches in the sides of the guide-rods, as described and shown in my former application, and substitute therefor pawls working in notches formed in the upper edges of the guide-rods.

Figure 1 is a side view of my improved invention. Fig. 2 is a top view of the same, showing the crank. Fig. 3 is a sectional view on the line $x x$, Fig. 1, of an upright part, with the cog-wheel working therein.

Similar letters refer to similar parts in the several views.

In Fig. 1, a' is an upright part of the block A' . h is a cog-wheel working in the notches b of the guide-rod B . This cog-wheel is supported in the upright a' by the portions of its hub marked $h' h'$, Fig. 3, which form journals received in corresponding journal-boxes in the upright part a' , as shown in Fig. 3.

i is a pawl attached to the hub of each cog-wheel h , as shown in Figs. 2 and 3, said pawl being received by the notches b in the guide-rod B .

j is a square shaft passing through the hubs of the cog-wheels h and extending sufficiently on either side of the machine to allow attachment of the crank m . The shaft j is removable at pleasure, being of the same size throughout.

The outside of the upright part a' consists of a plate, a^2 , which is attached by screws, and must be removed when the cog-wheel h is put into its place or removed therefrom.

l is a pawl attached to the top of each upright part a , the pivotal extremity of the pawl being received in a suitable socket, as shown in Fig. 2, the other extremity dropping into a notch in the upper edge of the guide-rod B .

In operating my improved invention the sliding block A is placed on one side of the belt-joining and the block A' on the other side, as shown in Fig. 2, the belt D resting on the bed of the blocks between the upright parts $a a$ and $a' a'$. The eccentric rollers $C C$, having been covered with sand-paper or other suitable material to increase the friction when in contact with the belt, are then placed within the said blocks and turned toward each other until their surface is brought in contact with the belt. The guide-rods $B B$ are then slipped into the blocks A and A' through the openings in the upright parts $a a$ and $a' a'$. The shaft j is then slipped into position, as shown in the drawings, and the crank m attached to either end thereof. By turning the crank m the cog-wheels, working in the notches of the guide-rods, move the rods through the upright parts $a' a'$, the crank being turned so as to draw the block A , moving with the guide-rods, toward the block A' . The pawls $i i$, dropping into the notches of the guide-rods, hold said rods in place when the belt is stretched to the proper tension. The eccentric rollers being covered with sand-paper, as aforesaid, when pressed down lightly, the friction is sufficient to prevent the rollers from slipping on the belt under all possible circumstances.

I do not now claim, broadly, the eccentric

rollers C C, the guide-rods B B, and the blocks A and A', having claimed similar elements in my former application; but

What I do claim, and desire to secure by
5 Letters Patent, is—

The combination, in a belt-tightener, of the block A, with the pawls *l l*, the block A', with the plate *a*², the cog-wheels *h h*, the pawls *i i*, the shaft *j*, the crank *m*, the guide-rods B B,

with notches, as shown, and the eccentric rollers C C, with a covering, substantially as described and shown, and for the purpose set forth.

JOHN T. FERTIG.

In presence of—

H. H. McDERMOTT,
T. J. HANKS.