

(No Model.)

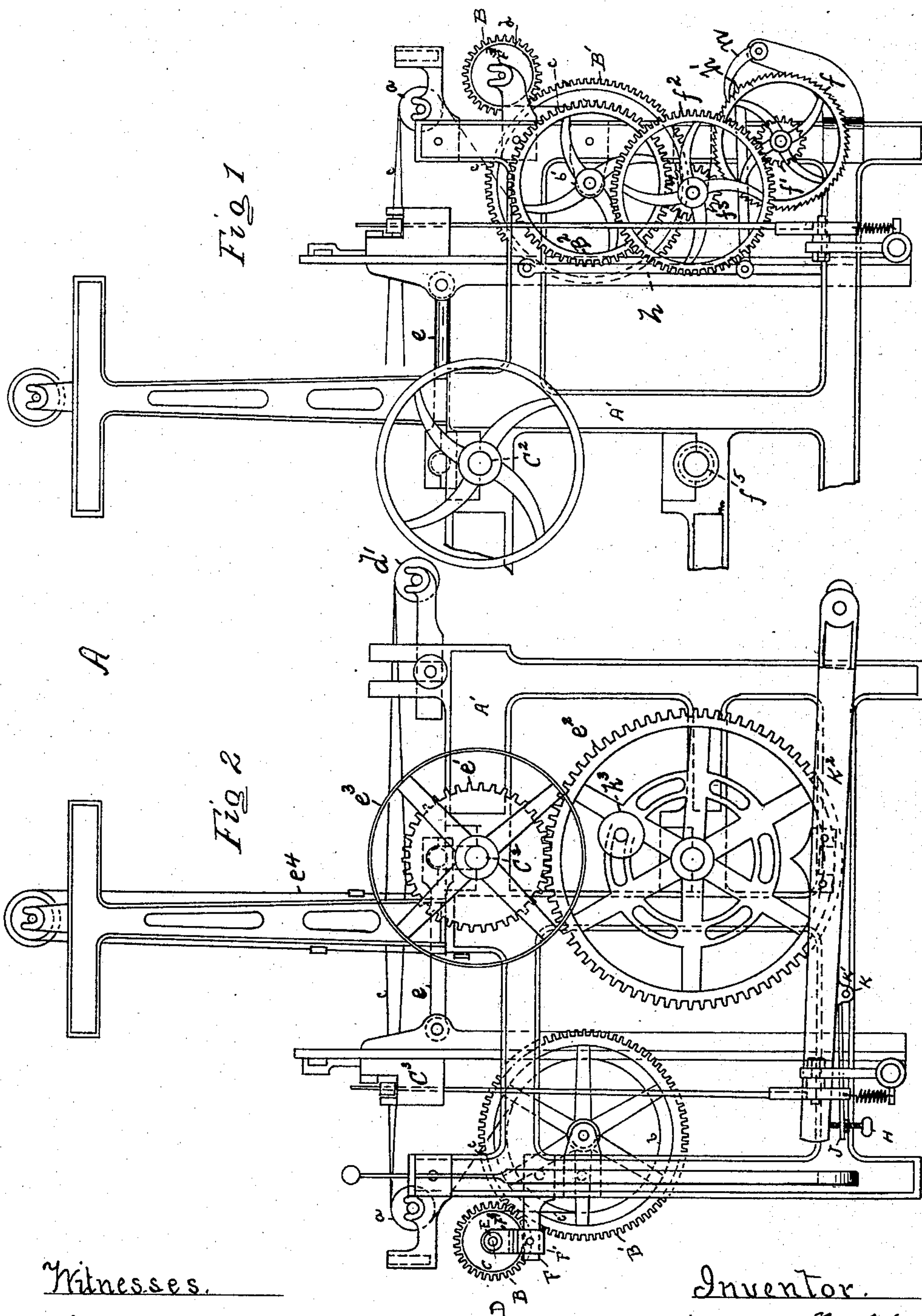
3 Sheets—Sheet 1.

H. TALKS.

LOOM.

No. 388,463.

Patented Aug. 28, 1888.



Witnesses.

Alfred B. Watson.

20
Frederick W Ball

Inventor.

Henry Talks.

John Inglis atty

(No Model.)

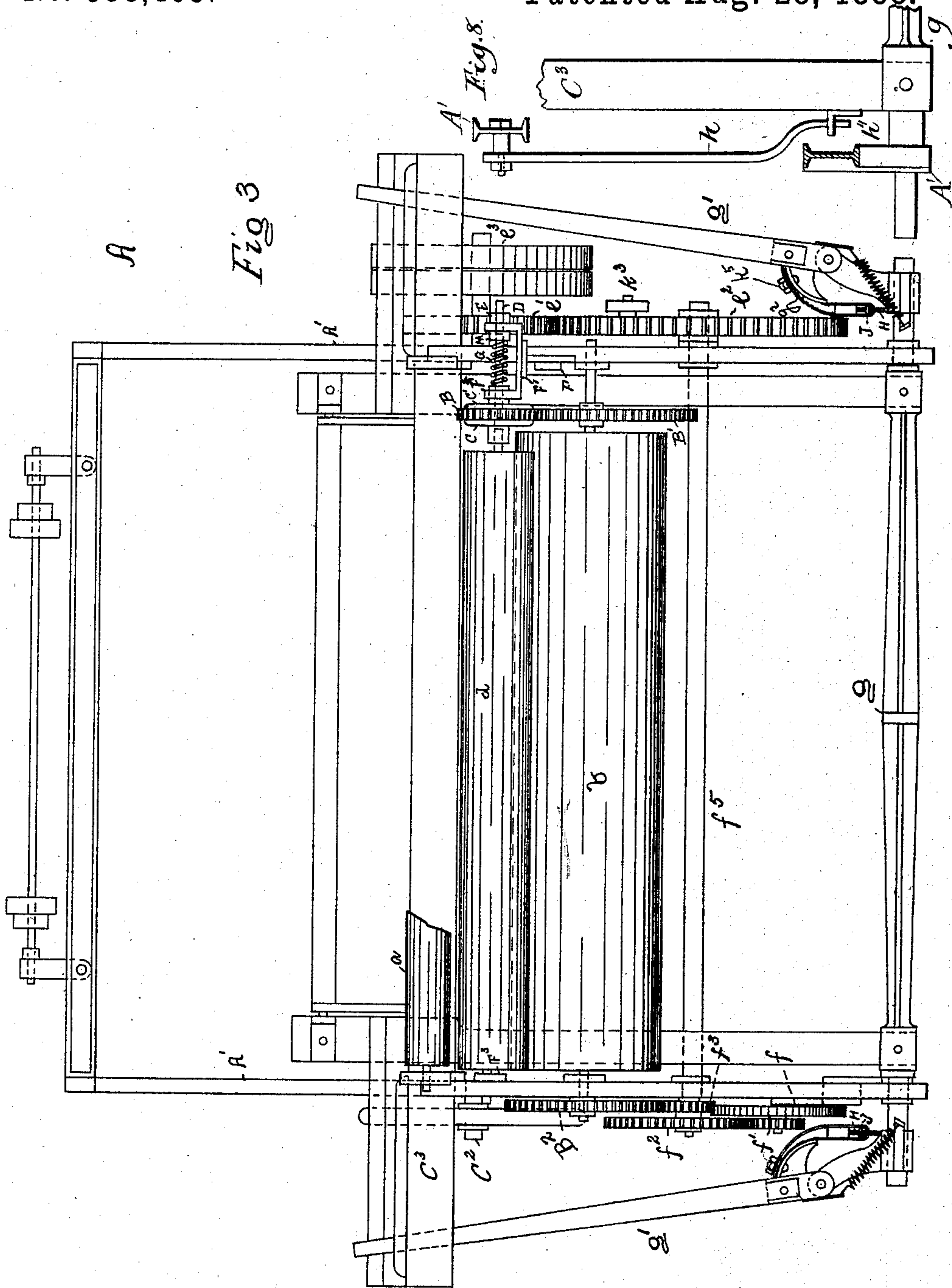
3 Sheets—Sheet 2.

H. TALKS.

LOOM.

No. 388,463.

Patented Aug. 28, 1888.



Witnesses.

Alfred B. Watson.

Frederick W. Ball.

Inventor.

Henry Talks.

John J. L. L. L.

(No Model.)

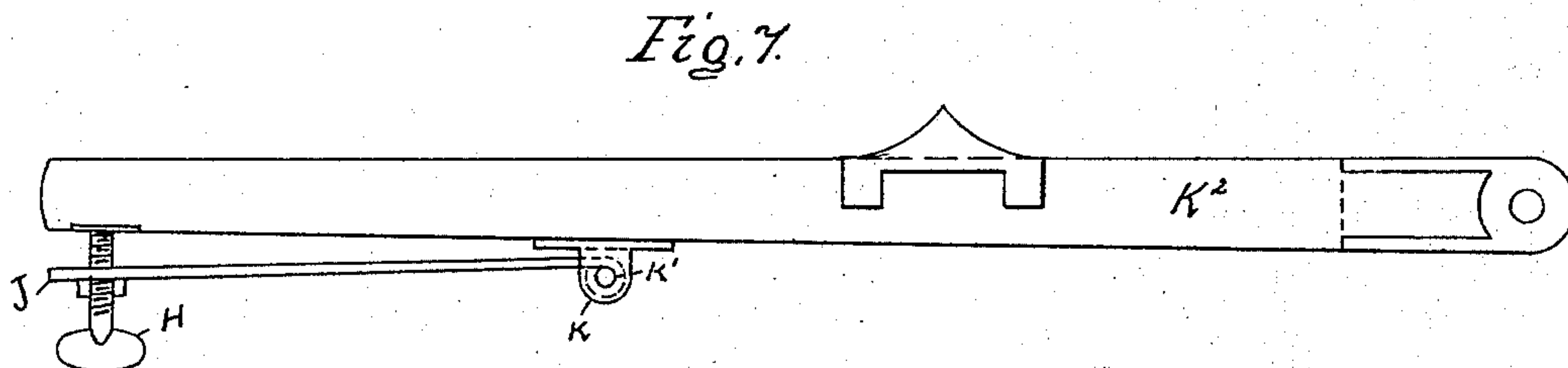
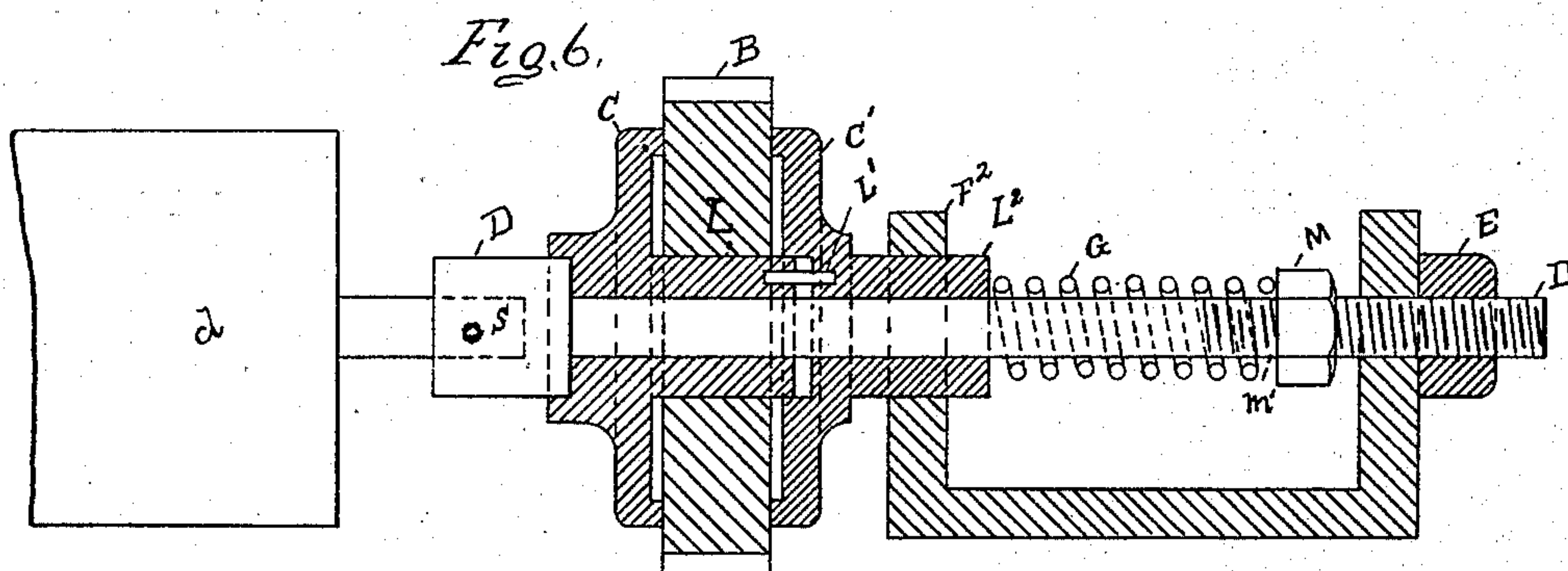
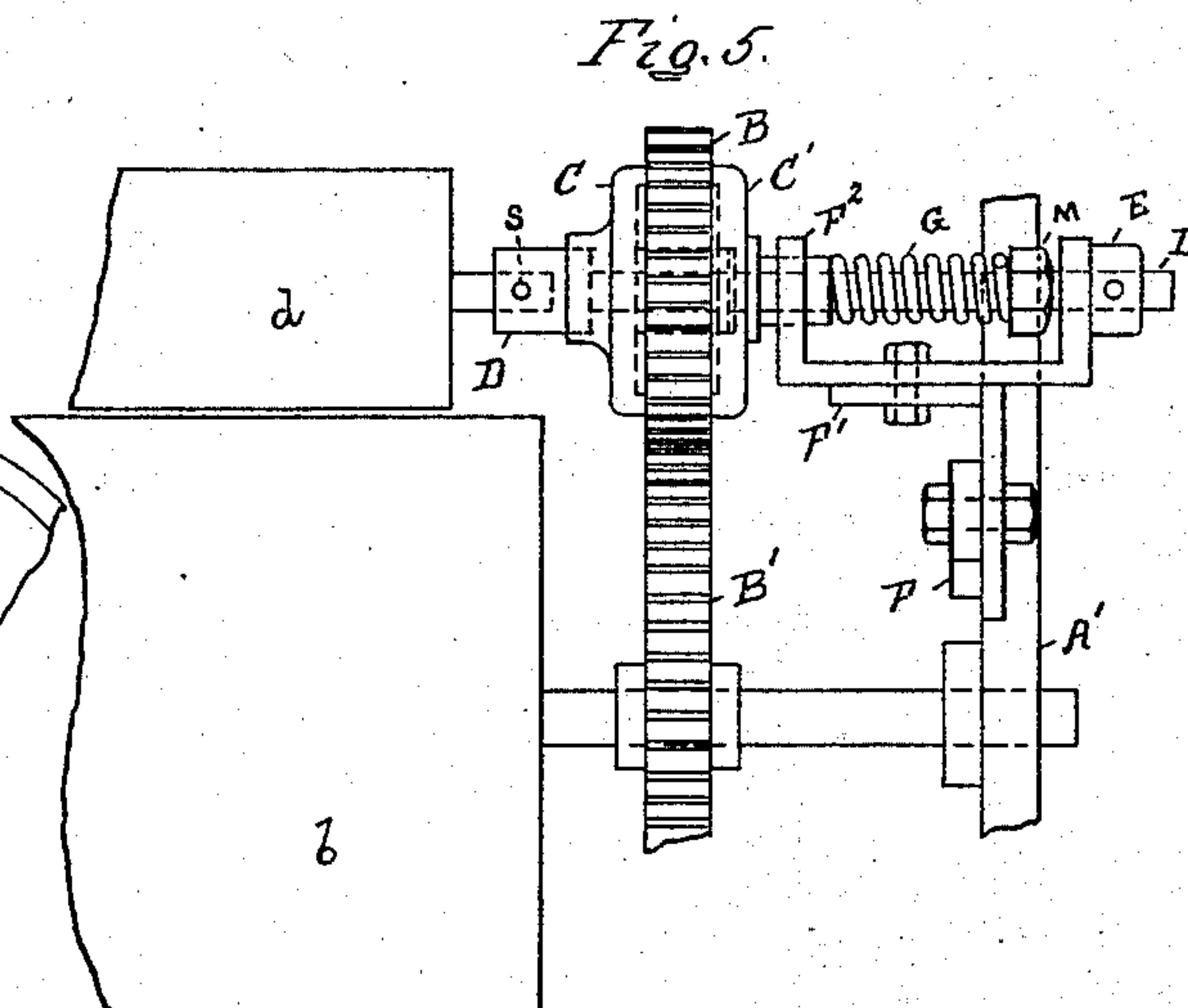
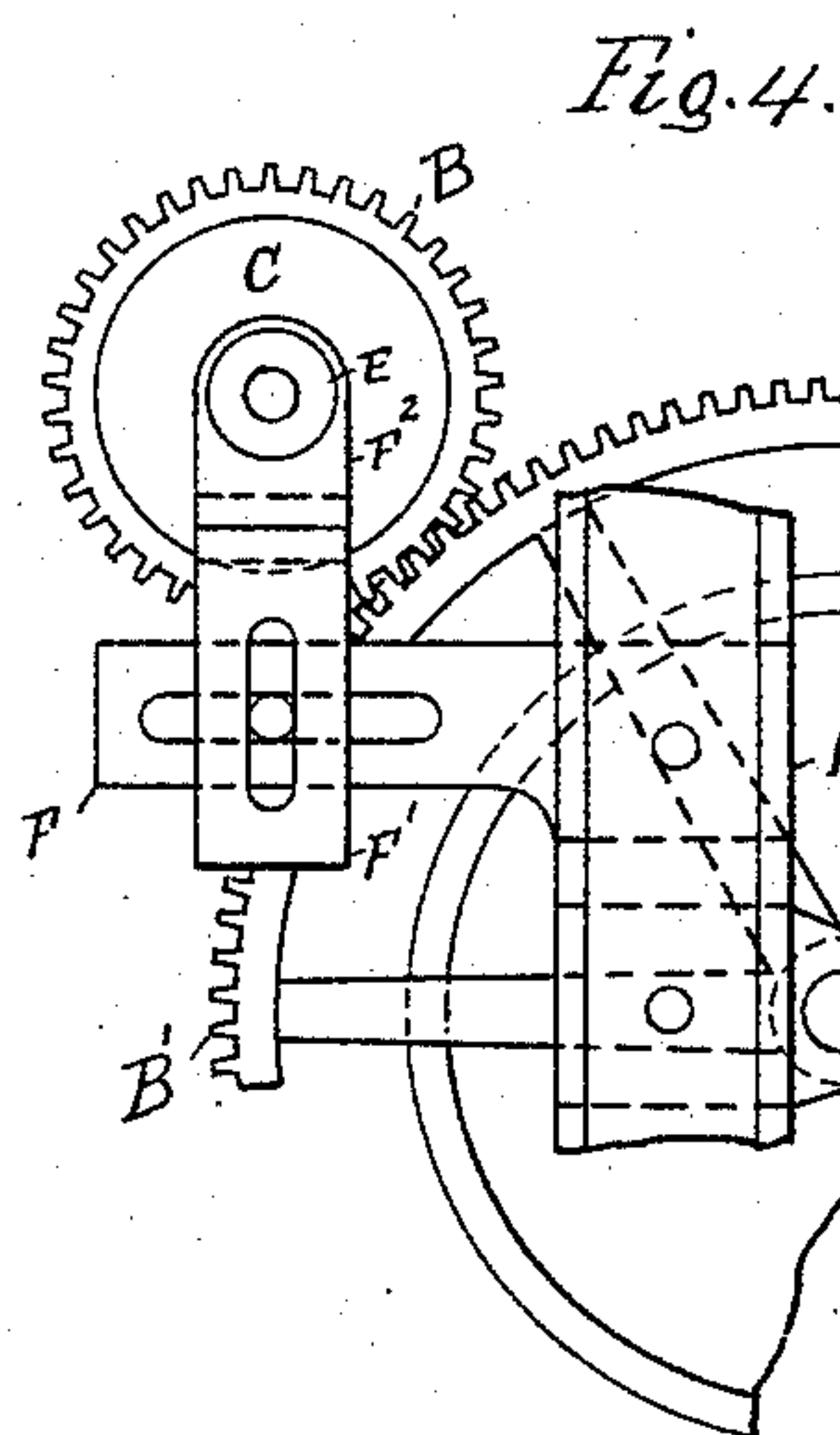
3 Sheets—Sheet 3.

H. TALKS.

LOOM.

No. 388,463.

Patented Aug. 28, 1888.



Witnesses,

Alfred B Watson.
Fred W. Ball.

Inventor,

Henry Talks.
John Inglis, atty.

UNITED STATES PATENT OFFICE.

HENRY TALKS, OF PATERSON, NEW JERSEY.

LOOM.

SPECIFICATION forming part of Letters Patent No. 388,463, dated August 28, 1888.

Application filed March 21, 1887. Serial No. 231,627. (No model.)

To all whom it may concern:

Be it known that I, HENRY TALKS, a citizen of the United States, residing at Paterson, Passaic county, State of New Jersey, have invented a new and useful Improvement in Looms, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

The object of my present invention is to insure that the fabric while being woven in the loom shall have the same number of picks or wefts in a given space and at a uniform tension throughout the same. These objects I attain by means of devices that are illustrated in the drawings, which will be hereinafter fully described, and pointed out in the claims.

Figure 1 shows in elevation a portion of one end of an ordinary loom. Fig. 2 shows in elevation the opposite end of the same with my invention attached. Fig. 3 is a front elevation of the loom with my invention attached, in which figure a portion of the guide-roller is removed. Fig. 4 shows in elevation a portion of my invention detached. Fig. 5 shows in elevation another portion of my invention detached. Fig. 6 shows in section some of the parts shown in Fig. 5 detached. Fig. 7 shows still another part of my invention in elevation detached, and Fig. 8 is a detail view.

A represents a loom of ordinary construction, having the usual frame, A', driving-shaft C', driving-pulley e', lay C', crank-arms e, gears e' e', heddles e', breast-roller a, ratchet-wheel f, holding-pawl n, take-up roller b, and gearing, hereinafter referred to, between the ratchet-wheel and cloth-beam. The loom, which is constructed as is usual, need not be further described herein.

To the frame A' of the loom A, I secure by bolts a bracket, F, in which bracket I arrange a spindle, D, the inner end of which spindle is formed with a socket adapted to receive the shaft of the cloth-beam d, which is secured in its position in the socket by a pin, s. The spindle D, I provide with flanges C and C'. The flange C is recessed on one side, and has an inwardly-projecting hub, L, in which hub is arranged a pin, L'. On the hub L of the flange C, I arrange a gear-wheel, B, while the flange C' has an outwardly-projecting hub, L', which impinges on the gear B and rests on the hub

L of the flange C, and has a suitable orifice to receive the pin L' of flange C. The hub L' of flange C' is arranged in part F' of the bracket F. The spindle D is provided with a spring, G, and a nut, M, that screws on a screw-thread, m', with which the spindle is provided. The spindle has on its end a collar or nut, E. The gear-wheel B gears with a gear-wheel, B', arranged on the roller b, which roller has on its opposite end a gear, B', that gears with a pinion, f', integral with a gear-wheel, f', which wheel gears with a pinion, f', that is integral with the ratchet-wheel f. The ratchet-wheel f is provided with a holding pawl, n, to prevent reverse motion of the wheel, and is actuated by a hooked arm, h', that engages the teeth of the wheel, the arm h' being pivoted to and actuated by a lever, h, which latter connects with the lay by a pin, h', and is actuated thereby. (See Fig. 8.)

To the under side of the picking-lever K', and in a suitable position thereon, I arrange and secure, by means of a lug, K, and bolt K', a bar, J, which bar passes through a loop, g', connected to the picker-stick g', and rests on the bottom of said loop, and has arranged therein a thumb-screw, H. The screw H passes through the bar J, and is arranged to act upon the under side of lever K' to raise or lower the free end of the lever to make the action of the cam K' thereon more or less forcible, to suit the requirements of the picker-sticks g' in effecting their movement of the shuttle through the shed. The picker-stick g' connects with lever K' by means of loop g', bolt K', and lug K'. If the screw H be turned forward, the lever K' will be raised by the action of the screw H thereupon, and will be held in its elevated position, subject to the more forcible tap of the cam K', while picker-stick g' will be caused by the more forcible action of the lever K' thereupon through the connections stated to throw the shuttle with increased force across the loom through the shed. The opposite will be the case when the action of the screw is reversed and the lever lowered. Thus the action of the picker-sticks g' can be regulated by means of bar J and screw H to throw the shuttle through the shed with just the force required to prevent the shuttle's back action and a consequent slackening of the weft

by reason of such action when the shuttle is thrown with too much force, or the opposite when the shuttle is thrown with too little force. Thus an even throwing in of the weft
5 by the shuttle is secured.

When the loom is in motion, lever *h* is actuated by the lay and reciprocates arm *h'*, which arm at each inward movement of the same takes up a certain number of teeth on the wheel *f*,
10 which imparts to the ratchet-wheel an intermittent movement, which, by means of pinion *f'*, turns gear *f''* and pinion *f'''*, which latter, meshing with gear *B''*, turns roller *b*, gear *B'*, and, by means of gear *B'*, turns the wheel *B*
15 and flanges *C C'*, that impinge thereon. As the woven fabric is delivered to the cloth-beam *d* from draft-roller *b* and is wound on the former, and the tension on the fabric is increased by the enlargement of the beam *d* by
20 the winding of the cloth on the same, the resulting increased tension on the fabric will cause the flanges *C C'* to slip on their respective sides of wheel *B*, and thus permit the cloth-beam to decrease its speed in keeping with its
25 growth in diameter to wind the woven fabric on the same at an even rate of speed throughout. By turning nut *M* forward on spindle *D* spring *G* will be compressed, and the same
30 will act to cause the more forcible impingement of the flanges *C C'* on the wheel *B* to

wind the fabric more tightly on the cloth-beam. The opposite will be the case when the action of the nut *M* is reversed. The roller *d*, when the same is filled with woven fabric, may be removed by removing the pin *S*, by which the
35 roller is secured to the spindle.

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

1. The combination, with spindle *D* and
40 spring thereon, and the bracket for supporting the spindle, of the flanges *C C'*, adapted to impinge on the opposite sides of gear *B*, the gear *B*, the roller *d*, supported by the spindle, the roller *b*, gear *B'*, nut *M*, and means for actuat-
45 ing roller *b* and its gear *B'*, substantially as and for the purpose set forth.

2. The combination, with bar *J*, and screw *H*, arranged in said bar, by which the lever *K*²
50 is raised or lowered to make the action of the cam thereon more or less forcible, of the lever *K*², bracket *K*, and bolt *K'*, picker-stick *g'*, loop *g*², shaft *g*, the cam *K*³, shaft *f*⁵, and gear thereon; shaft *C*², the gear on said shaft, and the spring *g*³, substantially as and for the pur-
55 pose set forth.

HENRY TALKS.

Witnesses:

FREDERICK W. BALL,
JOHN INGLIS.