

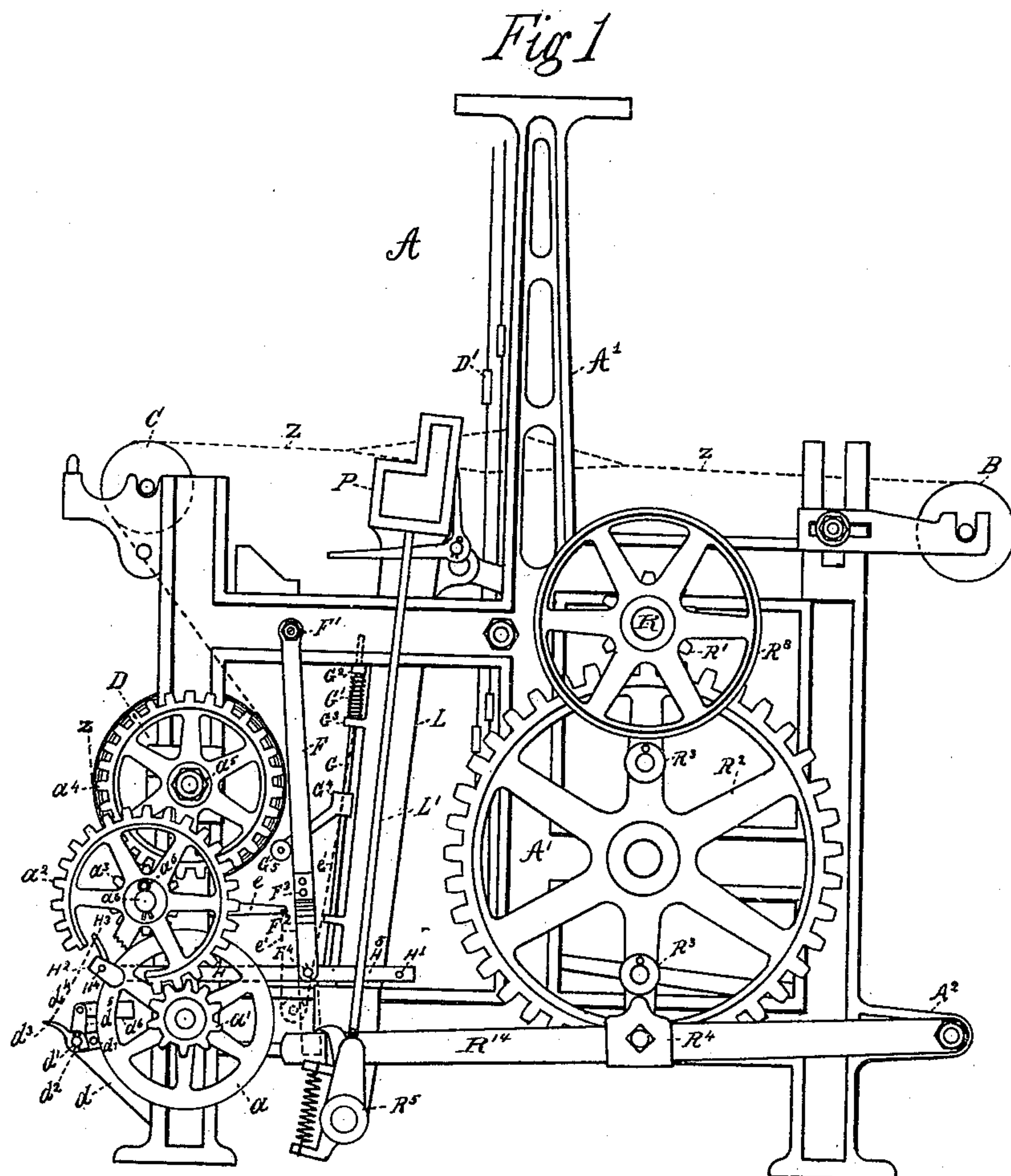
(No Model.)

4 Sheets—Sheet 1.

H. TALKS.  
TAKE-UP MECHANISM FOR LOOMS.

No. 329,972.

Patented Nov. 10, 1885.



Witnesses

Richard A. Healy

Fred. S. Warner

Inventors

Henry Talks

John Inglis atty

(No Model.)

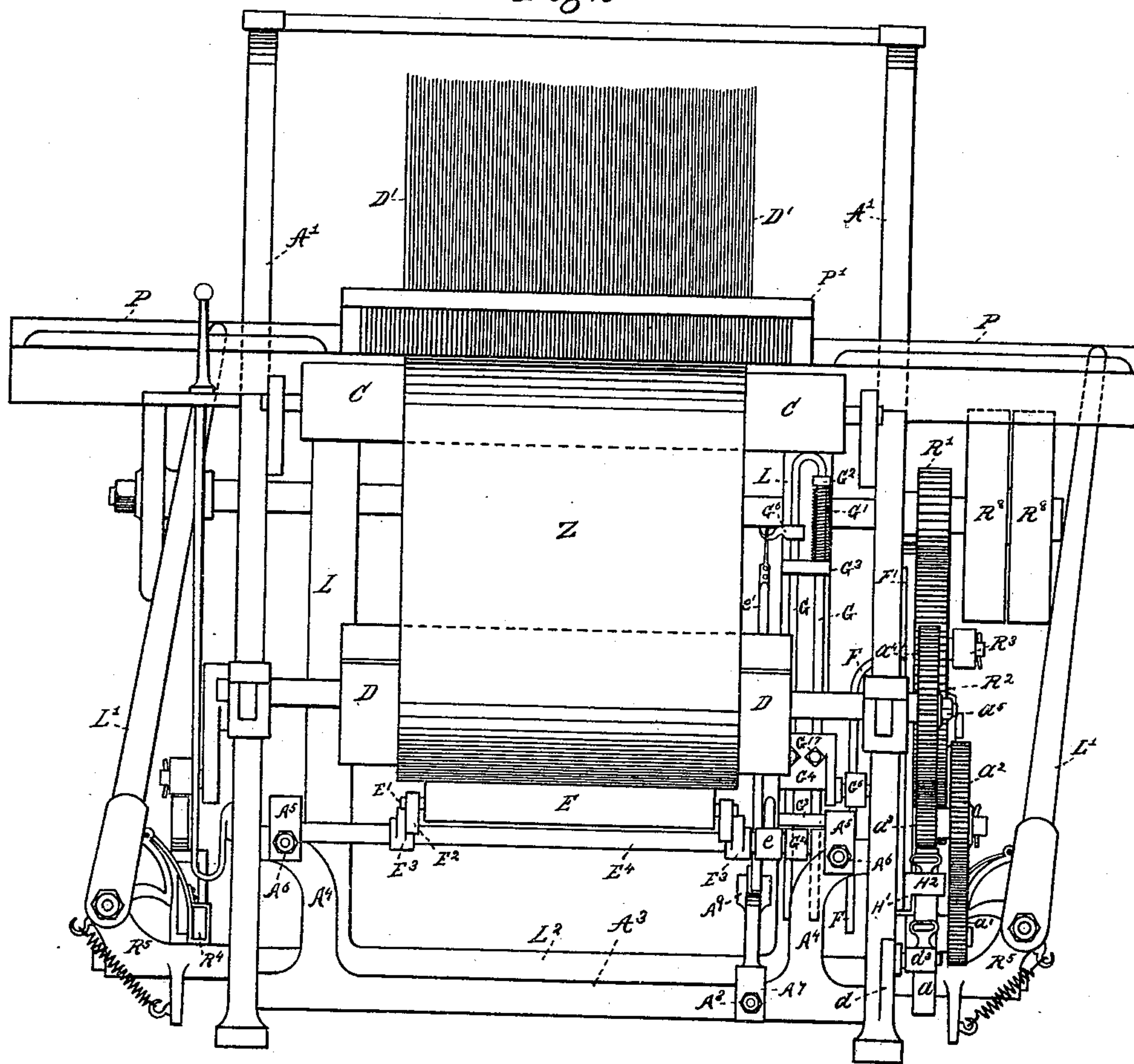
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*Fig 2*



Witnesses  
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Fredt. Warner

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Henry Talks  
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(No Model.)

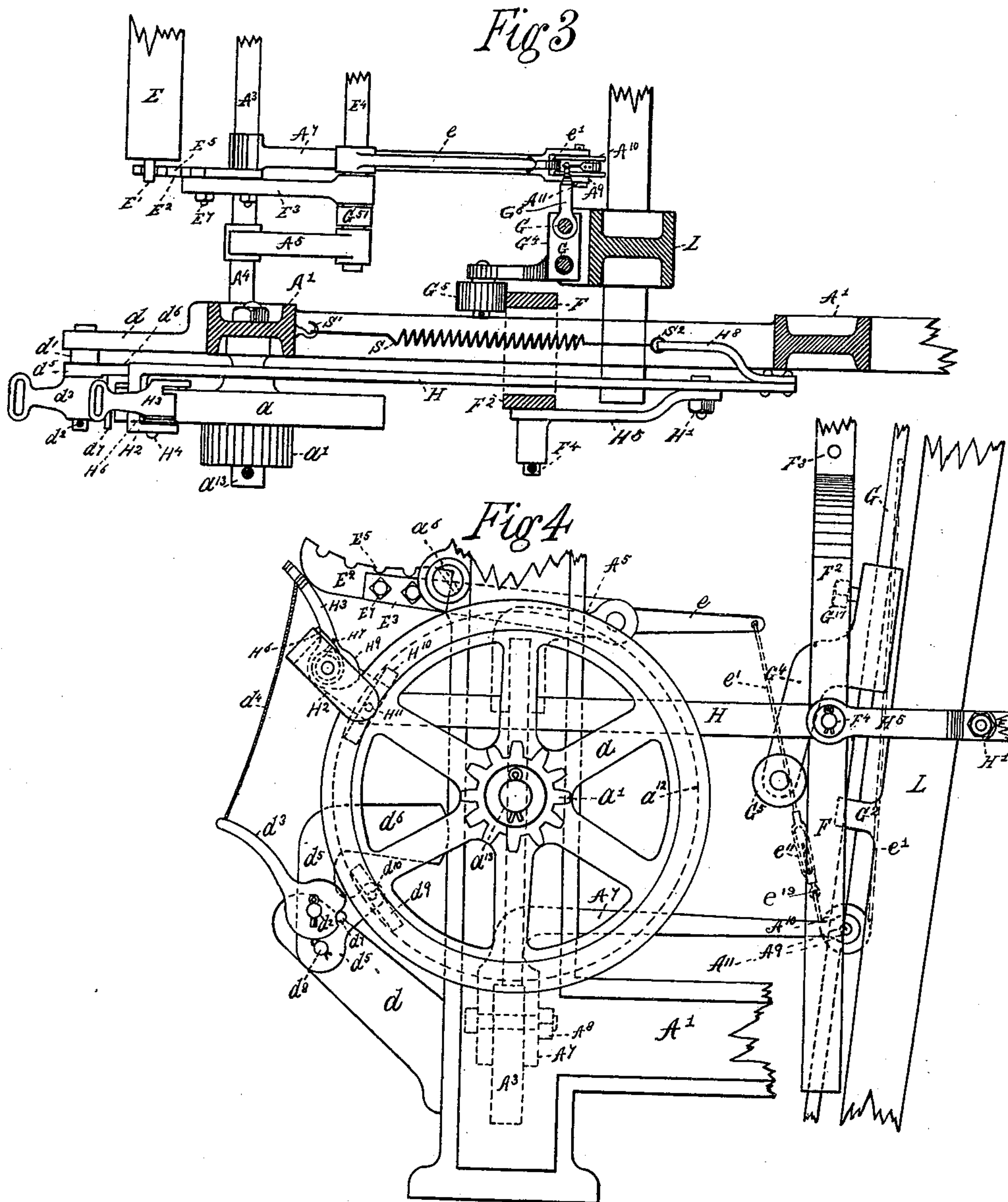
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## H. TALKS.

## TAKE-UP MECHANISM FOR LOOMS.

**No. 329,972.**

Patented Nov. 10, 1885.



Witnesses  
Richard A. Healy  
Fred. Warner.

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(No Model.)

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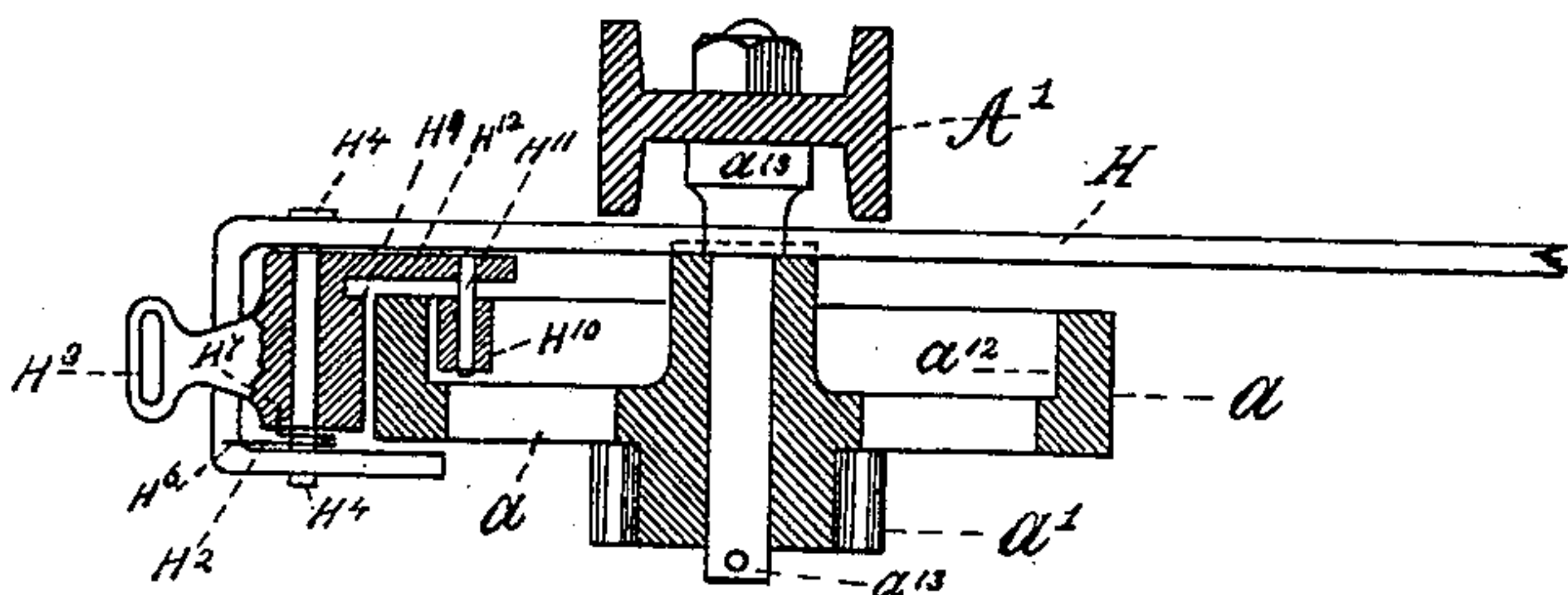
## H. TALKS.

## TAKE-UP MECHANISM FOR LOOMS.

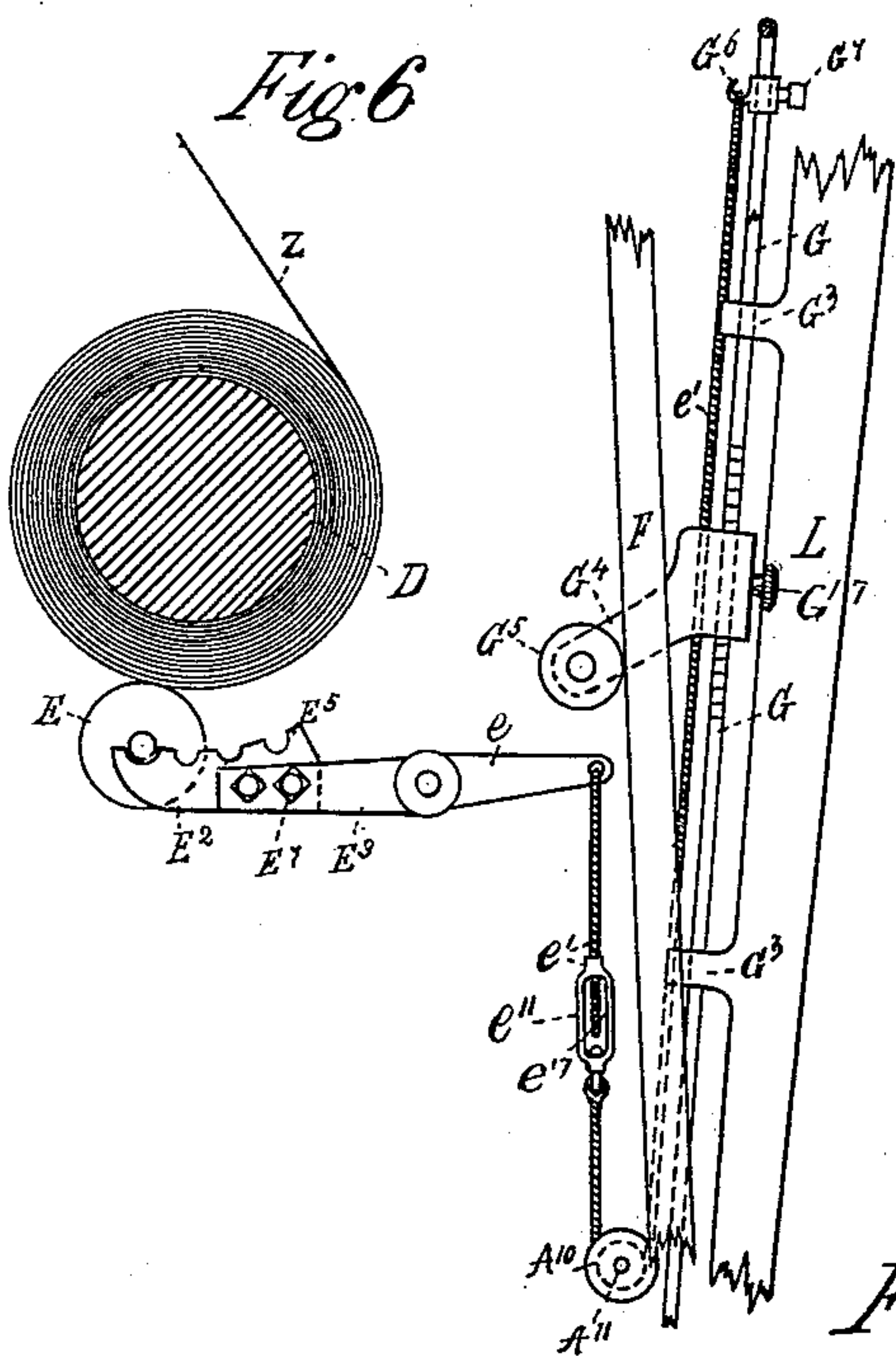
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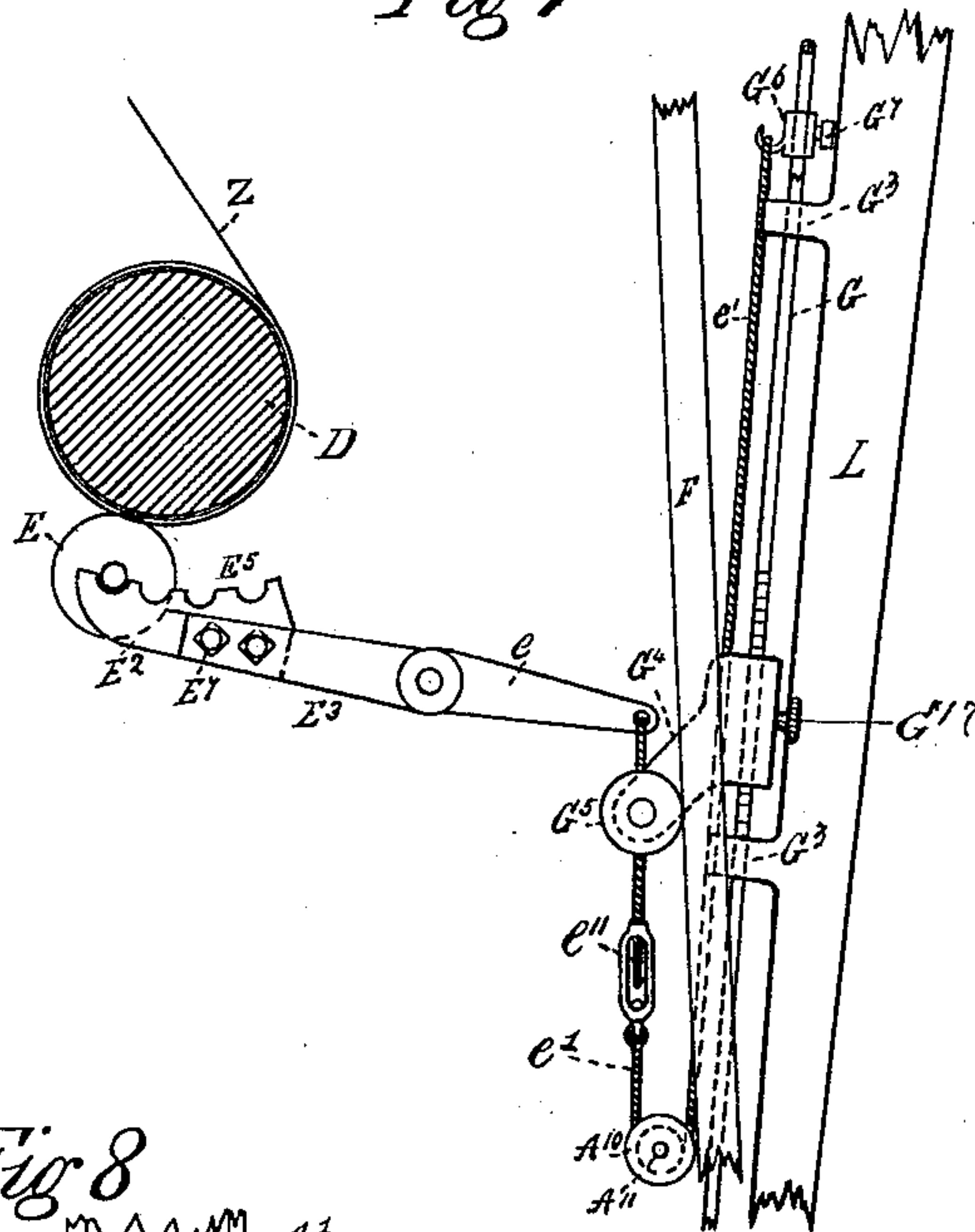
*Fig 5*



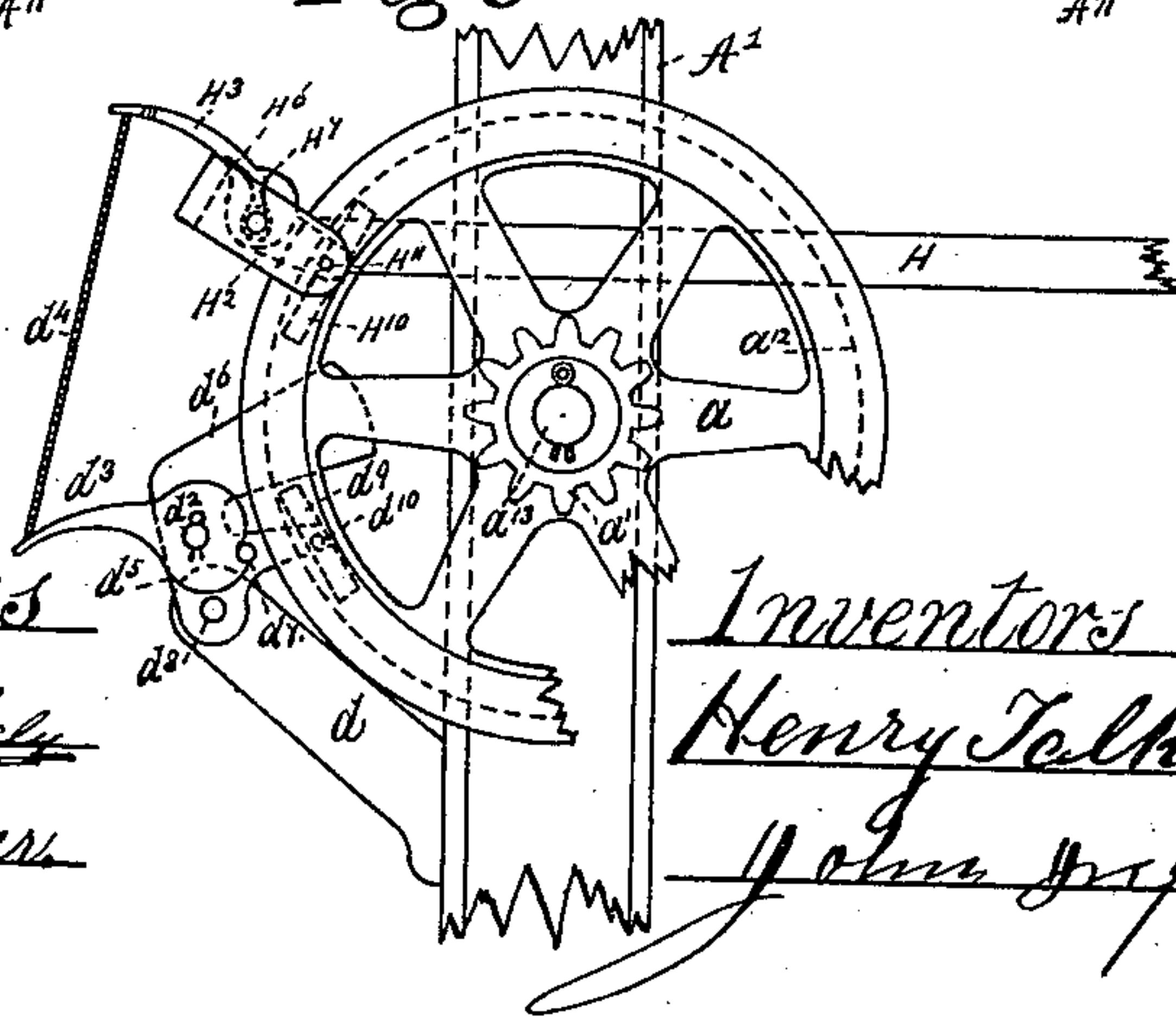
*Fig. 6*



*Fig 7*



*Fig 8*



Witnesses

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Fred L. Garner

Inventors

Henry Talks

*John Inglis Esq.*



# UNITED STATES PATENT OFFICE.

HENRY TALKS, OF PATERSON, NEW JERSEY, ASSIGNOR OF ONE-HALF TO  
HENRY DOHERTY, OF SAME PLACE.

## TAKE-UP MECHANISM FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 329,972, dated November 10, 1885.

Application filed May 18, 1885. Serial No. 165,909. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY TALKS, a subject of Queen Victoria, residing at Paterson, Passaic county, State of New Jersey, have  
5 invented a new and useful Improvement in Take-Up Mechanism in Looms, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

10 The object of my invention is to provide a take-up mechanism for looms, by which the cloth-roller will be so actuated as to take up the woven fabric at the same regular rate of speed, notwithstanding the increase of its di-  
15 ameter by the winding of the cloth thereon. I attain this object by the construction herein shown and explained.

Figure 1 of the drawings shows one side of an ordinary loom in elevation with my inven-  
20 tion attached. Fig. 2 is a front elevation of the same. Fig. 3 is a partial horizontal section of the loom. Fig. 4 shows in side elevation the parts shown in Fig. 3, only a portion of the loom-frame, lay-sword, rock-lever, and yoke  
25 being shown. Fig. 5 is a view of the friction-wheel and connected devices, the clutch-wheel, actuating-clutch, and frame being shown in section. Fig. 6 is a detail view with the cloth-roller in section. Fig. 7 is a similar view  
30 showing the parts of Fig. 6 in the position occupied by them when the cloth-roller is empty; and Fig. 8 shows the friction-wheel and connected devices in elevation, and in the position occupied by them when the wheel is  
35 released from the action of the clutch, a portion of the wheel being broken away.

A represents a loom of ordinary construction, having the usual frame, A', driving-shaft and pulleys R R', lay P, heddles D', cloth-  
40 roller D, picker-sticks L', lay rock-shaft L', breast-roller C, gearing R' R', tappets R' R', picking-levers R', and warp-roller B.

On elevated portions A' of the transverse rail A' of the loom-frame I secure by bolts A' rearwardly-projecting arms A', in the ends of  
45 which arms I journal a shaft, E'. In suitable positions on the shaft E', I arrange and suitably secure forwardly-projecting arms E', on the free ends of which I secure by bolts E' curved  
50 bearing-brackets E'. In open bearings E' of the brackets E', I journal a friction-roller, E,

having journals E', which roller I arrange to be in continual contact with the cloth-roller D, and the cloth Z wound thereon. On the shaft E', and between the arms E' and A', I  
55 arrange washers G', to keep separate said arms on their shaft E'. To the lower part of the loom-frame I secure a stud, a', on which stud I journal a wheel, a. The wheel, a, is provided with a pinion, a' that is integral  
60 therewith, and which meshes with an intermediate gear-wheel, a', having a pinion, a', that gears with a gear-wheel, a', on the end of the cloth-roller D. The wheel a' and its pinion a' are journaled on a stud, a', and the  
65 wheel a' is secured to the roller D by a nut, a'. The rim of the wheel a, on the inner side of the wheel, projects sufficiently beyond the arms of the wheel to accommodate a grip, H', which grip I arrange on the inner circumfer-  
70 ence of the rim of the wheel a, and to engage therewith. Said grip forms a part of a friction-clutch, H', having a dog, H', which is provided with a spring, H', to keep it in engagement with the wheel a. The dog H', with its  
75 spring H', is arranged on a bolt, H'. One end of the spring engages with the dog H', and the other end rests on the end of the bar H, as shown in Fig. 5. The grip H' is pivoted to the end of the dog H' on a pivot, H'.  
80 To a sloping bracket, d, secured to the lower part of the loom-frame, I pivot on a pivot, d', a brake-lever, d', having a rearwardly-projecting lug, to which is pivoted on a pivot, d', a grip, d'. To the brake-lever d', which has  
85 an inward-projecting part, d', is pivoted on a pivot, d', a dog, d', for which there is arranged on the lever d' a stop, d'. In lugs G', that are arranged on and secured to the lay-sword L, I arrange a yoke, G, that passes  
90 down through suitable orifices prepared therefor in the lugs G', as shown in Fig. 3, and is provided on one arm with a spring, G', that tends to hold the yoke in raised position, the spring resting on one of the said lugs G', and  
95 abutting at the top against a stop, G', on the yoke. The other arm of the yoke G is provided with a hooked bracket, G', that fits thereon, and is adjustably secured to the said arm of the yoke by a set-screw, G'. To  
100 the hook G', I secure one end of a draw-cord, e', the opposite end of which cord I



secure in an eye prepared therefor in the end of a lever,  $e$ , secured to the shaft  $E^4$ . The draw-cord  $e'$  works around a pulley,  $A^{10}$ , pivoted on a pivot,  $A^{11}$ , to the inner end,  $A^9$ , of an arm,  $A^7$ , bolted to the rail  $A^8$  by a bolt,  $A^8$ . The yoke  $G$  carries a roller,  $G^5$ , journaled on a stud that is arranged in the end of a bracket,  $G^4$ , that fits upon the yoke  $G$ , and is held in position on the same by a set-screw,  $G^7$ . The upper end of the rock-lever  $F$  is pivoted to the frame  $A'$  by a pivot-bolt,  $F'$ , and the lower end of the rock-lever is provided with a curved projecting part,  $F^2$ , to which one end of an arm,  $H^5$ , is pivoted by a stud,  $F^4$ . The part  $F^2$  extends to the outside of the loom-frame, while the other part of said lever  $F$  is arranged on the inside of the loom-frame, to keep said lever in position to engage the roller  $G^5$ , as shown. The projecting portion  $F^2$  of the lever  $F$  is bolted to the said lever by bolts  $F^3$ . To the end of the bar  $H$  there is secured by bolts an arm,  $H^8$ , having a hook,  $S^2$ , to which hook I attach one end of a spring,  $S$ , the opposite end of the spring being secured to a hook,  $S'$ , secured in the loom-frame. The spring  $S$  tends to hold the lever  $F$  in contact with the roller  $G^5$ . The arm  $H^5$  is secured to the bar  $H$  by a bolt,  $H'$ , at one end, and the other end of the same is arranged on the stud  $F^4$ , as stated. The draw-cord  $e'$ , I provide with a swivel,  $e^{11}$ , one end of which has a swivel-eye, while the opposite end has screw-thread to accommodate the screw  $e^{17}$ , secured to the draw-cord  $e'$ .

The operation is as follows: The loom is supposed to be in motion. The lay-sword  $L$  carries with it as it vibrates the yoke  $G$  and roller  $G^5$ , and by means of said roller imparts a vibrating movement to the lever  $F$  and bar  $H$ , which, by means of clutch  $H^2$ , turns the wheel  $a$  and its pinion  $a'$ , and by means of pinion  $a'$  turns the intermediate gear-wheel,  $a^2$ , and its pinion  $a^3$ , which in turn rotates the wheel  $a^4$  and cloth-roller  $D$ . The woven cloth  $Z$  is taken over the roller  $C$ , and from thence to the roller  $D$ , to which the cloth is secured, and on which it is wound. As the winding of the cloth on the roller proceeds, the diameter of the roller is increased, which depresses the friction-roller  $E$  and raises the rear end of the lever  $e$ , and by means of draw-cord  $e'$  draws downward the yoke  $G$ , compressing the spring  $G'$ , which spring continues to be compressed as the winding of the cloth on the roller continues. As the diameter of the roller is increased, and the friction-roller is depressed thereby, the yoke  $G$ , with its roller  $G^5$ , is drawn

down by the draw-cord  $e'$ , which action shortens the stroke of the lever  $F$  and bar  $H$  and causes the clutch  $H^2$  to take a shorter grip on the wheel  $a$ , which decreases accordingly the speed of the cloth-roller  $D$ . The dog  $d^3$  is by the weight of the heavy end  $d^6$  of the lever  $d^5$  kept in continual engagement with the wheel  $a$ , to keep said wheel from reverse rotation. Should the wheel  $a$  need to be reversed in its action, the attendant may so reverse the action of said wheel by simply pressing down the outer arm of the dog  $d^3$ , which action, by means of cord  $d^4$ , turns the dog  $H^3$  and releases the friction-wheel  $a$  from the action of both dogs, and leaves it free to be reversed by hand, at which time the devices are in the position shown in Fig. 8, the dog  $d^3$  being hard against the stop  $d^7$ . The roller  $G^5$  may be set on the yoke to throw in a given number of picks, any little variation being provided for by means of the swivel  $e^{11}$ , by which the draw-cord may be adjusted to the number of picks in a given space to a nicety.

If thought advisable, the yoke-arm on which the bracket  $G^4$  is arranged may be indexed, as shown in Figs. 6 and 7, to indicate the exact position for the bracket  $G^4$ , to give the desired number of picks to a given space.

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

1. The combination, with the loom-frame and wheel  $a$ , having a pinion,  $a'$ , of the dog  $H^3$ , the grip  $H^{10}$ , the spring  $H^6$ , pivot  $H^{11}$ , the bolt  $H^4$ , for securing the dog to the bar  $H$ , the bar  $H$ , lever  $F$ , the roller  $G^5$ , for vibrating the lever  $F$ , pivot  $F'$ , pivot  $F^4$ , the yoke  $G$ , the bracket  $G^4$ , the arm  $H^5$ , arm  $H^8$ , the stud  $S'$  and spring  $S$ , the cloth-beam, the lays, and gearing between the cloth-beam and wheel  $a$ , substantially as described.

2. The combination, with the lay, the cloth-beam, the wheel  $a$ , and gearing, substantially as described, between the said wheel and cloth-beam, of the yoke  $G$ , bracket  $G^4$ , roller  $G^5$ , lever  $F$ , bar  $H$ , a connection, substantially such as described, between the lever  $F$  and bar  $H$ , a spring,  $S$ , connected to the bar  $H$ , the clutch-dog  $H^3$ , the grip  $H^{10}$ , the cord  $d^4$ , the dog  $d^3$ , the lever  $d^5$ , the stop  $d^7$ , the grip  $d^9$ , the roller  $E$ , the brackets  $E^2$ , the arms  $E^3$ , the shaft  $E^4$ , the arm  $e$ , the draw-cord  $e'$ , the hooked bracket  $G^6$ , and the spring  $G'$ , substantially as and for the purpose set forth.

HENRY TALKS.

Witnesses:

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JOHN INGLIS.