

Sept. 4, 1928.

1,683,515

H. C. ZIMMERMAN

BRAKE MECHANISM

Filed March 2, 1925

FIG-2-

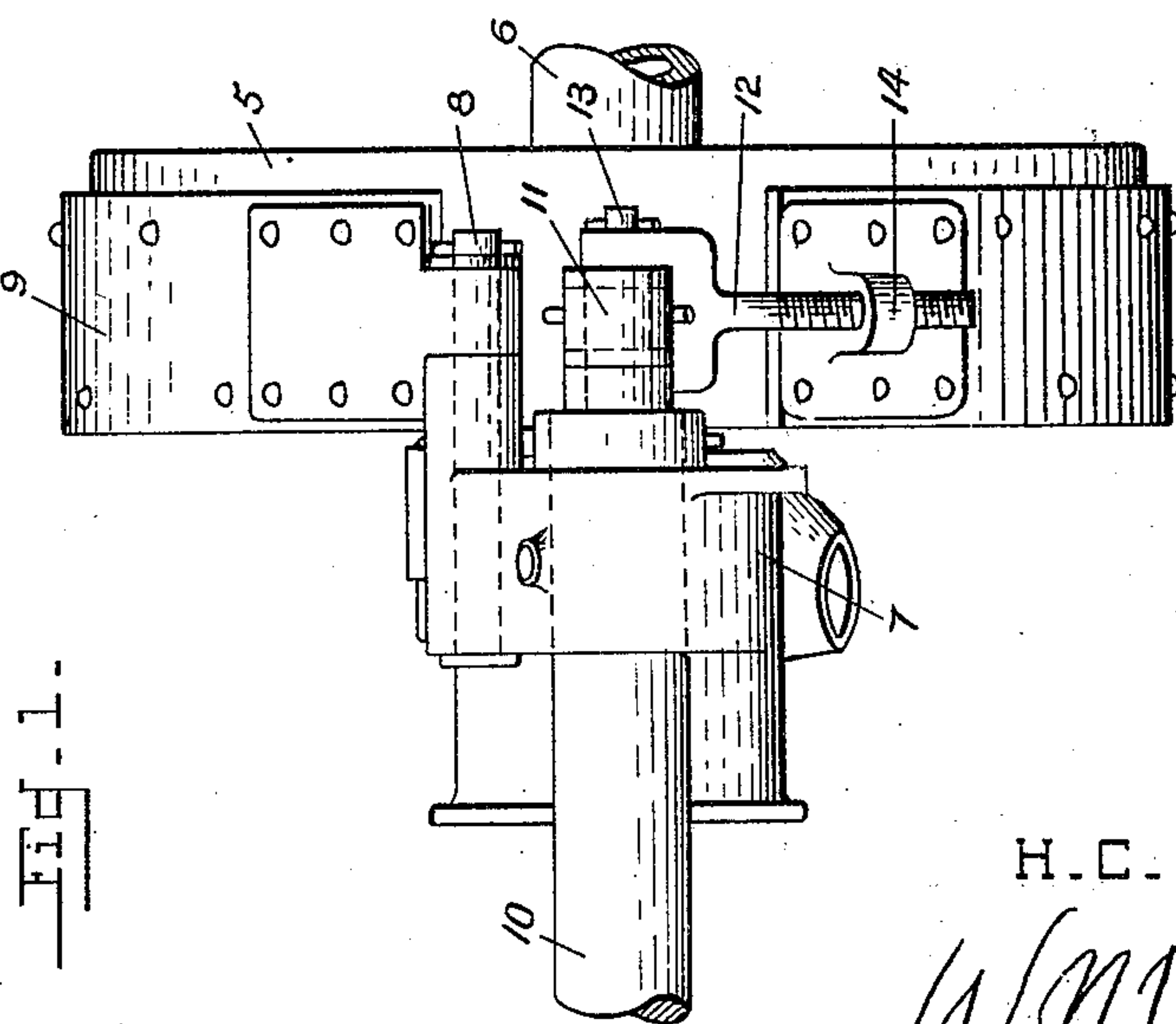
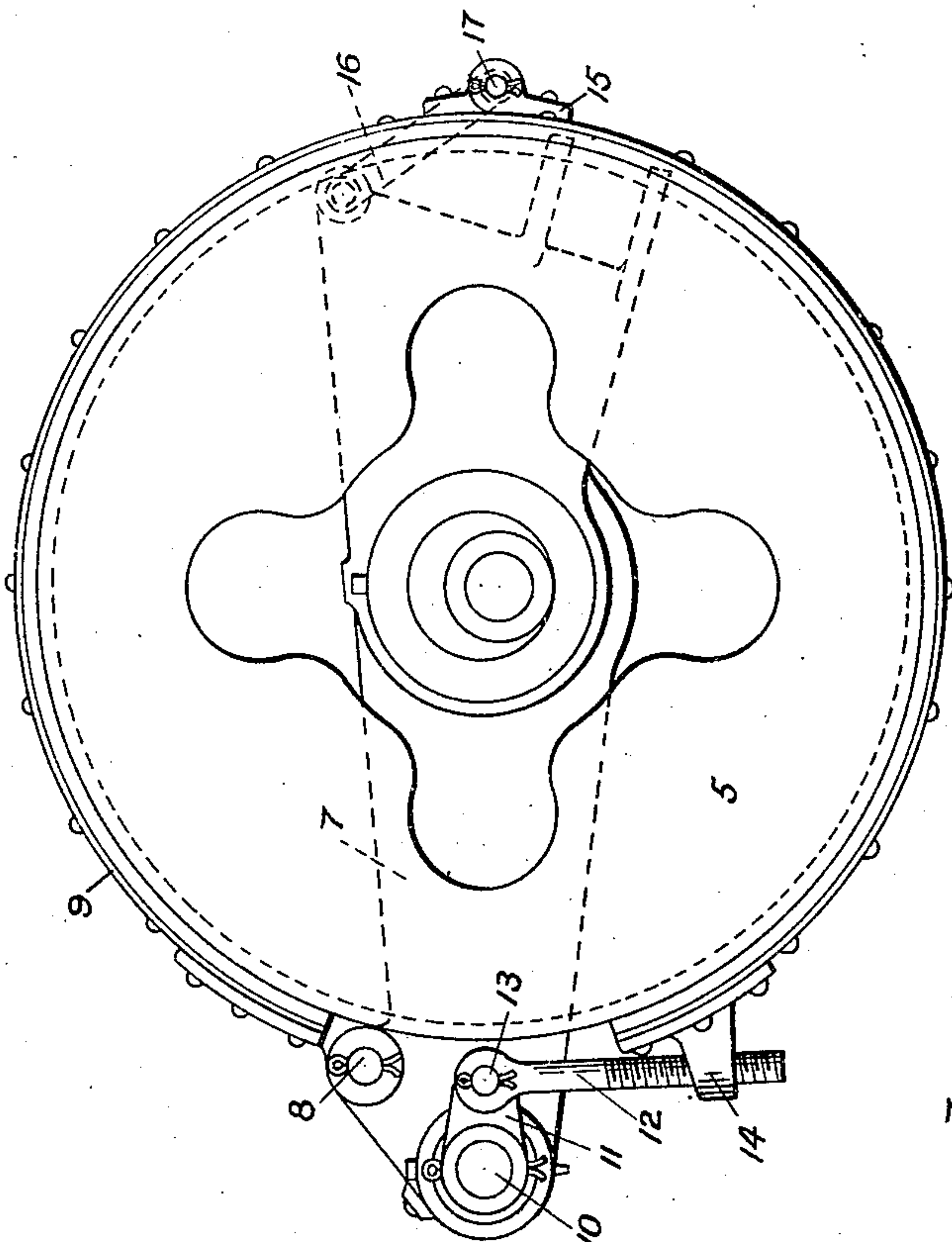


FIG-1-

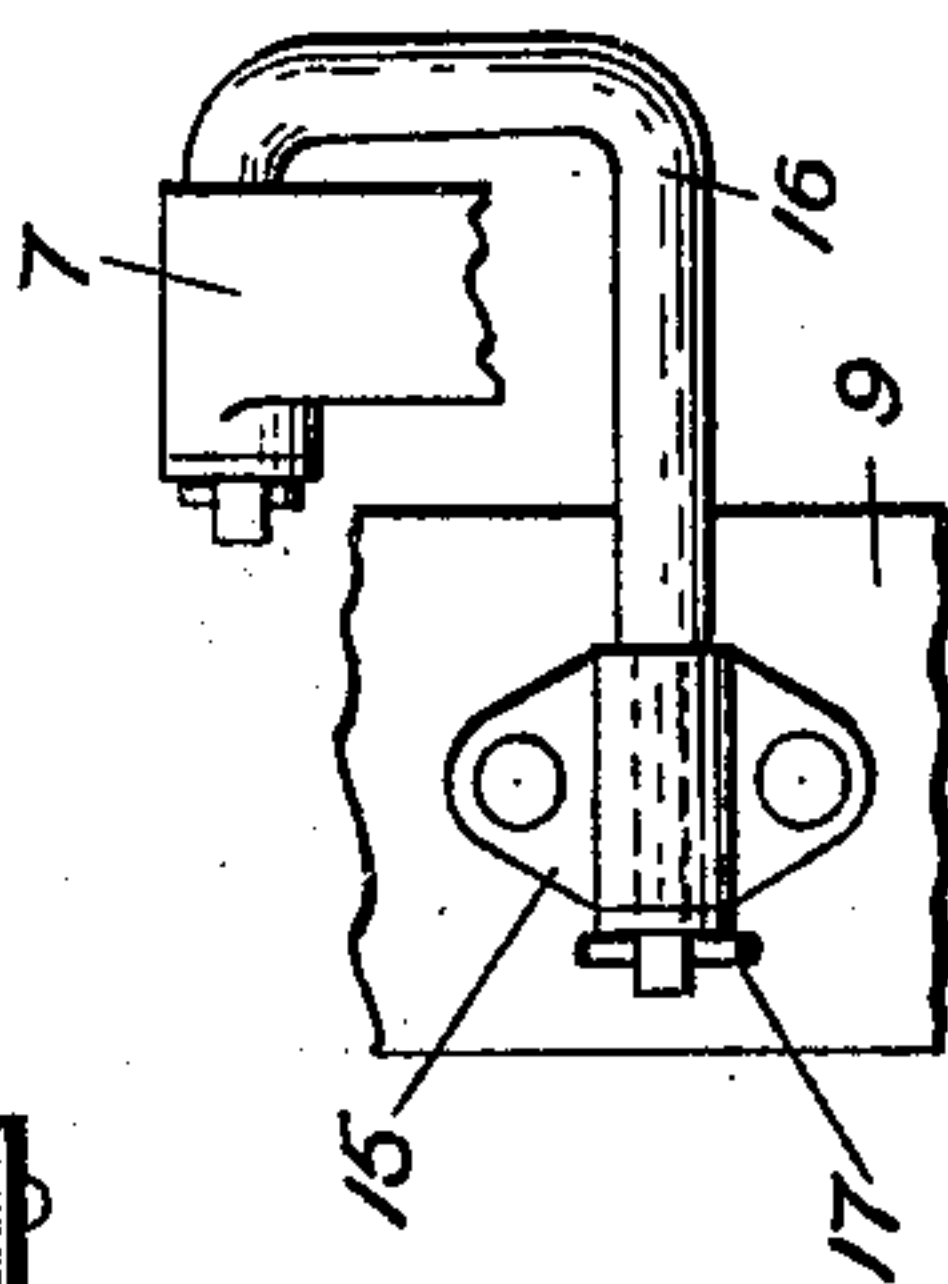


FIG-3-

Inventor  
H. C. Zimmerman

W. N. Roach.

Attorney

Patented Sept. 4, 1928.

1,683,515

# UNITED STATES PATENT OFFICE.

HARRY C. ZIMMERMAN, OF WASHINGTON, DISTRICT OF COLUMBIA.

## BRAKE MECHANISM.

Application filed March 2, 1925. Serial No. 12,782.

(GRANTED UNDER THE ACT OF MARCH 3, 1883, AS AMENDED APRIL 30, 1928; 370 O. G. 757.)

The invention described herein, if patented, may be manufactured and used by or for the Government for governmental purposes without the payment to me of any royalty thereon.

This invention relates to brake mechanisms and has reference, more particularly, to means for facilitating disengagement of the band from the drum.

10 Bands for drum brakes are usually provided with lugs which are free to work in slots formed in brackets or clips whereby lateral movement of the bands is prevented. Such an arrangement invariably interferes  
15 with the proper disengagement of the band with the result that a greater portion of the band drags about the drum.

To avoid this objection while accomplishing the same purpose, the present invention  
20 contemplates the provision of a swinging arm securely attached to the band and pivotally mounted in the brake hanger or on any convenient rigid element of the carriage.

To these and other ends, the invention consists in the construction, arrangement and  
25 combination of elements described hereinafter and pointed out in the claims forming a part of this specification.

A practical embodiment of the invention is  
30 illustrated in the accompanying drawing, wherein:

Fig. 1 is a front end view of the drum brake mechanism;

Fig. 2 is a side elevation thereof showing  
35 the application of the swinging arm; and

Fig. 3 is a fragmentary view showing in detail the swinging arm.

Referring to the drawings by numerals of reference:

40 There is shown a drum brake of more or less conventional type including a drum 5 fixed to a wheel (not shown) which is mountable on the axle 6. Secured to the axle is a brake hanger 7 provided adjacent the periphery of the drum with a pin 8 for anchoring  
45 the upper end of a band 9 which encircles the drum.

The hanger is provided with a bearing for a brake shaft 10 on which is keyed a lever arm 11, the free end of which is received in  
50 the bifurcated end of the adjusting link 12 and held thereto by a pin 13. The link is threaded in the ear 14 on the free end of the band 9 so that rotation of the shaft may serve to tighten or loosen the band about the drum  
55 in a well known manner.

Secured to the band approximately opposite its free end is an apertured block or bracket 15 which receives the end of an arm  
60 16 pivotally mounted on a rigid element of the carriage, conveniently the brake hanger 7, as shown. To prevent lateral movement of the band it is only necessary to utilize a single securing pin 17 passing through the arm on  
65 the side of the block opposite the hanger.

While in the foregoing there has been illustrated and described such construction and arrangement of elements as constitute the preferred embodiment of the invention, it is nevertheless desired to emphasize the fact  
70 that interpretation of the invention should only be conclusive when made in the light of the subjoined claims.

I claim:

1. In a drum brake, a brake hanger, a brake  
75 band having one end anchored from the hanger, a brake shaft, means connecting said shaft and the free end of the band, a bracket secured to an intermediate portion of the  
80 band, and an arm pivotally mounted on the hanger at a point within the circumference of the band and retained in said bracket.

2. The combination with a drum brake including a brake band of a swinging arm pivoted at a point within the circumference of  
85 the band and actuated by release of the band to move outwardly from the drum.

3. The combination of a drum brake including an uninterrupted braking band of swinging means actuated by release of the  
90 band to lift the band from contact with the drum.

HARRY C. ZIMMERMAN.