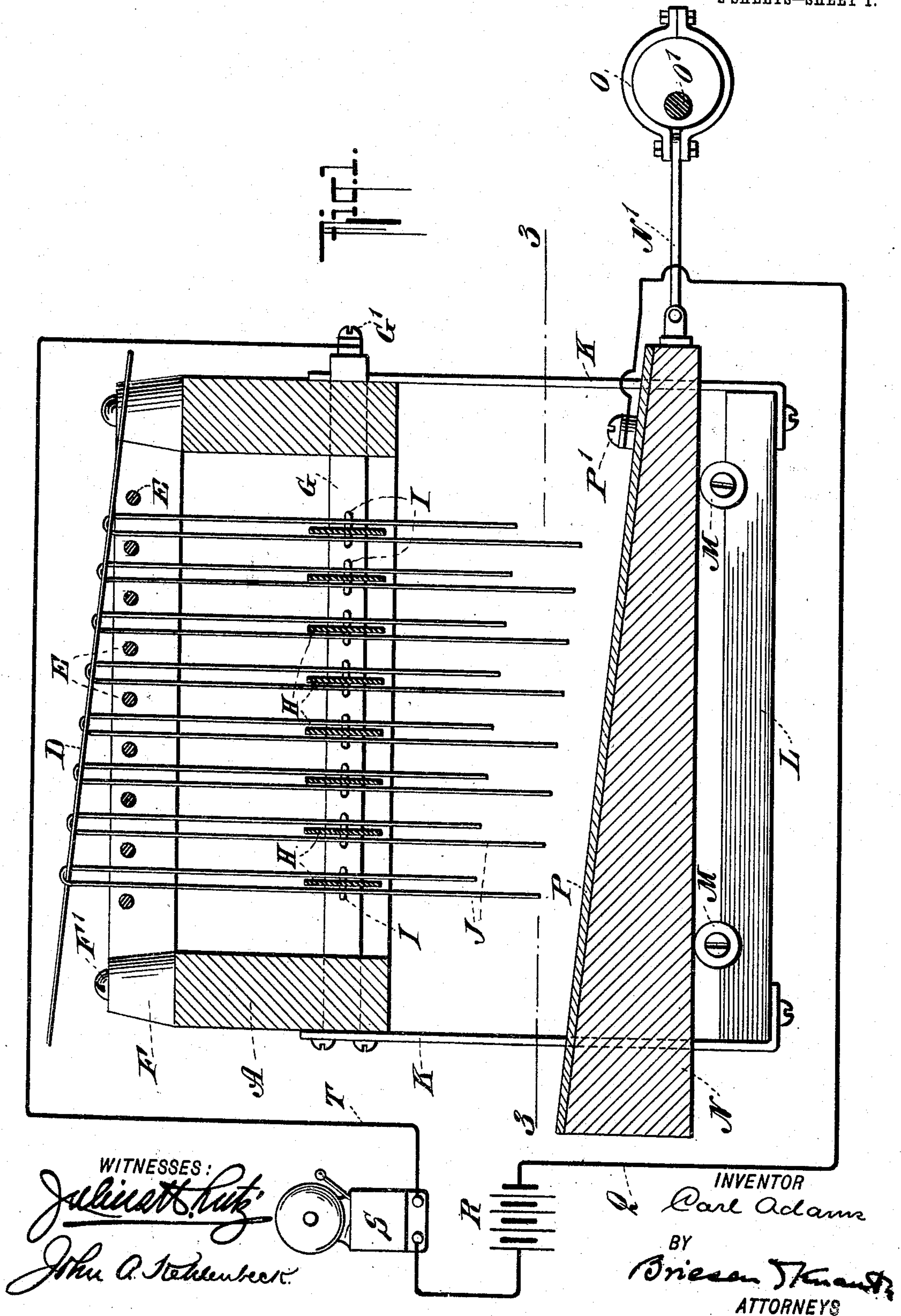


No. 855,034.

PATENTED MAY 28, 1907.

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APPLICATION FILED JAN. 25, 1906.

2 SHEETS—SHEET 1.

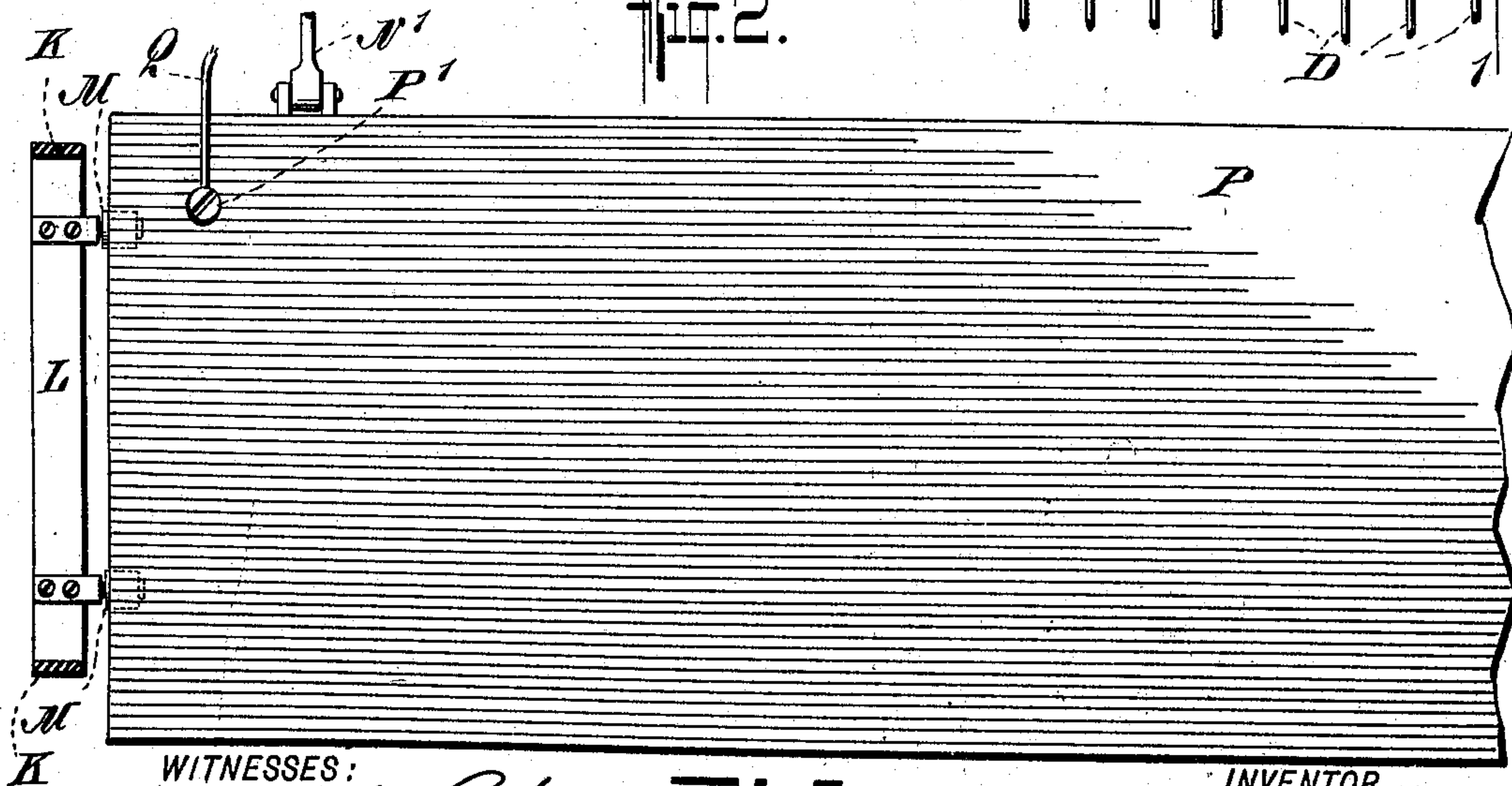
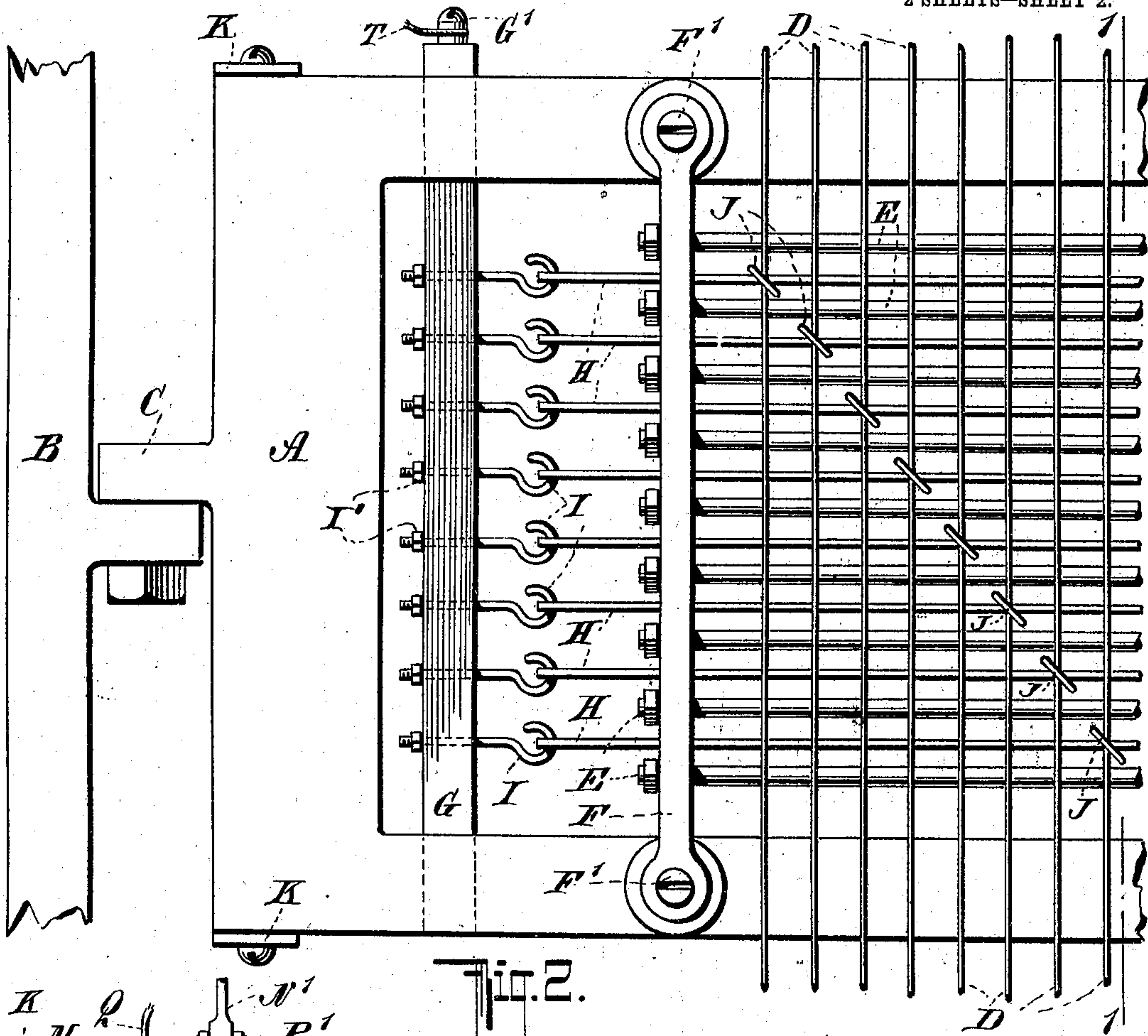


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WITNESSES:

*Julius H. Pütz*  
*John A. Kelenbeck*

Fig. 3.

INVENTOR

*Carl Adams*  
BY  
*Brisson Thwait*  
ATTORNEYS



# UNITED STATES PATENT OFFICE.

CARL ADAMS, OF EASTON, PENNSYLVANIA.

## WARP STOP-MOTION FOR LOOMS.

No. 855,034.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed January 25, 1906. Serial No. 297,743.

*To all whom it may concern.*

Be it known that I, CARL ADAMS, a subject of the Emperor of Germany, and a resident of Easton, county of Northampton, State of Pennsylvania, have invented certain new and useful Improvements in Warp Stop-Motions for Looms, of which the following is a specification.

My invention relates to looms, and has for its object to provide such machines with an alarm which will be sounded every time a warp thread breaks.

My invention will be fully described hereinafter, and the features of novelty will be pointed out in the appended claims.

Reference is to be had to the accompanying drawing, in which

Figure 1 illustrates my invention in cross section taken on the line 1—1 of Fig. 2; Fig. 2 is a partial plan view, and Fig. 3 is a horizontal section on the line 3—3 of Fig. 1.

A represents a frame secured at both ends to a stationary portion B of the loom as shown at C. This frame runs crosswise of the loom so that the usual warp threads D run at substantially right angles thereto.

E represents spaced rods which run lengthwise of the frame A at the upper portion thereof, and have their ends secured in supports F which are fastened to the said frame A by screws F.

Bars G extend across the frame and through the sides thereof near each end of the said frame. Strips of metal or other electrical conducting material H are arranged lengthwise of the frame A and have each of their ends engaged by hooks I which are carried by the bars G. For the purpose of adjustability these hooks may pass through said bars G, and may be screw threaded to accommodate nuts I'.

On each of the warp threads D is supported a hair-pin or U-shaped metal contact member J. One of the tines of these members J is longer than the other, as clearly shown in Fig. 1. The purpose of these contact members J will be more clearly brought out hereinafter.

Members K extend downwardly from the frame A near each end thereof for the purpose of supporting the cross-bars L to which are secured the rollers M. A reciprocating platform N is arranged to travel on these rollers M, and may be reciprocated in any well-known manner as, for instance, by rods N' and eccentrics O on a driving shaft O'.

This platform N, which may be entirely of metal or may be of wood covered with metal P as shown, has connected to it at P' one end of a wire Q which passes to one pole of a battery R. The other pole of the battery may be connected with a bell or other alarm S from which a wire T passes to one of the bars G to which it is secured at G'.

It is to be understood that the contact members J each straddle a separate warp thread, one for each thread, and extend downwardly between the rods E and to each side of the strips I. If one of the warp threads breaks, the weight of the member J which straddles said thread will cause said member to drop so that its longer tine will contact with the upper metal surface P of the reciprocating platform N. Now each time the said platform is reciprocated to the right in Fig. 1 it will carry the contact member J with it against the corresponding strip I which is connected to the bar G, and thus complete the electrical circuit and ring the alarm. The operator will then know that a warp thread is broken, and will stop the loom to repair the break. The operation is repeated when another warp thread breaks.

To insure a perfect contact in case the upper surface of the platform becomes covered with dust or other foreign matter, the said platform may be made with its upper surface inclined. In this case the contact members J should be hung with their longer lines on that side of the strips I which faces toward the higher edge of the reciprocating platform N, so as to insure a contact with the said strips I when the warp threads break. If the longer tines of the said contact members were arranged on the sides of the strips which face toward the narrow edge of the platform N, the said tines would be forced or bent away from the strips I when the said members J dropped into engagement with the platform N.

Various modifications may be made without departing from the nature of my invention as defined in the claims.

I claim, and desire to secure by Letters Patent:—

1. In an alarm for looms, a contact member arranged to straddle a warp thread, a strip extending between said contact member and connected with one terminal of an electrical alarm, and a reciprocating platform connected with the other terminal of said alarm, with which platform said contact member is



adapted to connect when a warp thread breaks and by which it is adapted to be brought into engagement with said strip to complete the electrical circuit and sound the alarm.

5 2. In an alarm for looms, a contact member arranged to be normally supported by a warp thread, and to drop when the thread breaks, in combination with a member in a substantially horizontal plane arranged to  
10 reciprocate beneath said contact member, and an alarm circuit arranged to be closed by the engagement of said contact member with the reciprocating member.

3. In an alarm for looms, a contact member  
15 arranged to be normally supported by a warp thread, and to drop when the thread breaks, in combination with a member arranged to reciprocate beneath said contact member, and having an inclined upper surface, and an  
20 alarm circuit arranged to be closed by the engagement of said contact member with the reciprocating member.

4. In an alarm for looms, a contact member, substantially U-shaped, arranged to  
25 straddle a warp thread and having one end

or tine longer than the other, in combination with a member arranged to reciprocate beneath said contact member in a substantially horizontal plane and an alarm circuit arranged to be closed by the engagement of the  
30 longer tine of said contact member with the reciprocating member.

5. In an alarm for looms, a contact member substantially U-shaped, arranged to straddle a warp thread and having one end or  
35 tine longer than the other, in combination with a member arranged to reciprocate beneath said contact member, and having an inclined upper surface which is higher on that side on which the longer tine is arranged, and an  
40 alarm circuit arranged to be closed by the engagement of said contact member with the reciprocating member.

In testimony whereof, I have hereunto subscribed my name in the presence of two sub-  
45 scribing witnesses.

CARL ADAMS.

Witnesses:

CHAS. B. BRUNNER,  
JOHN BRUNNER.