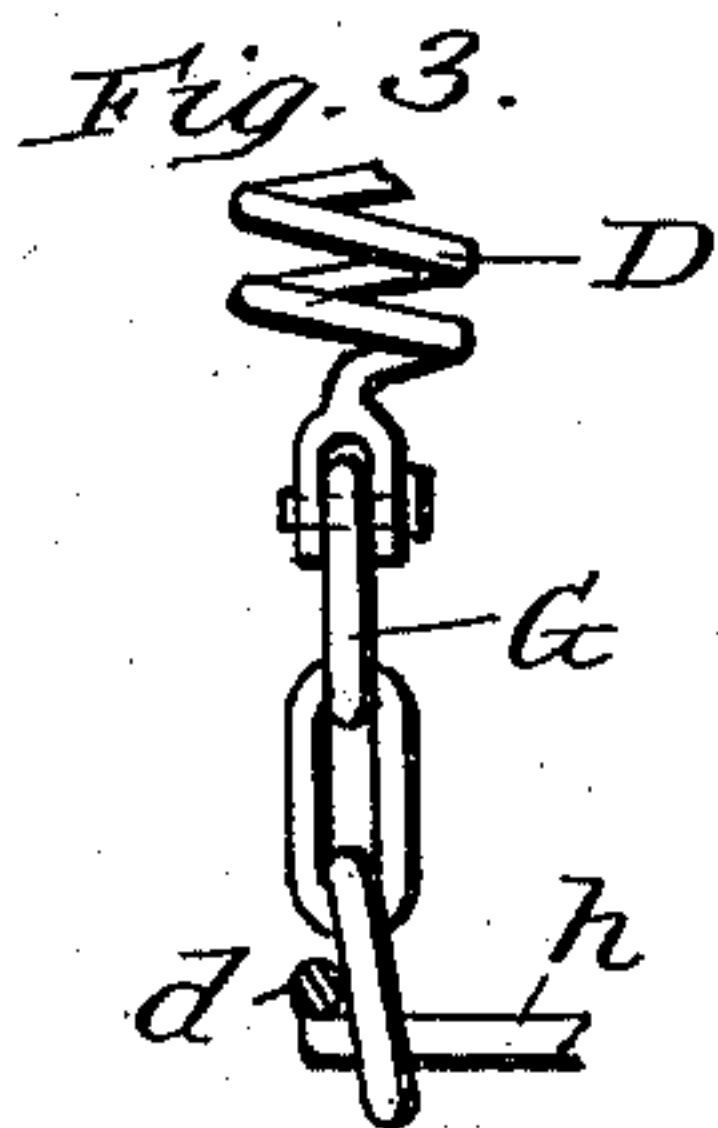
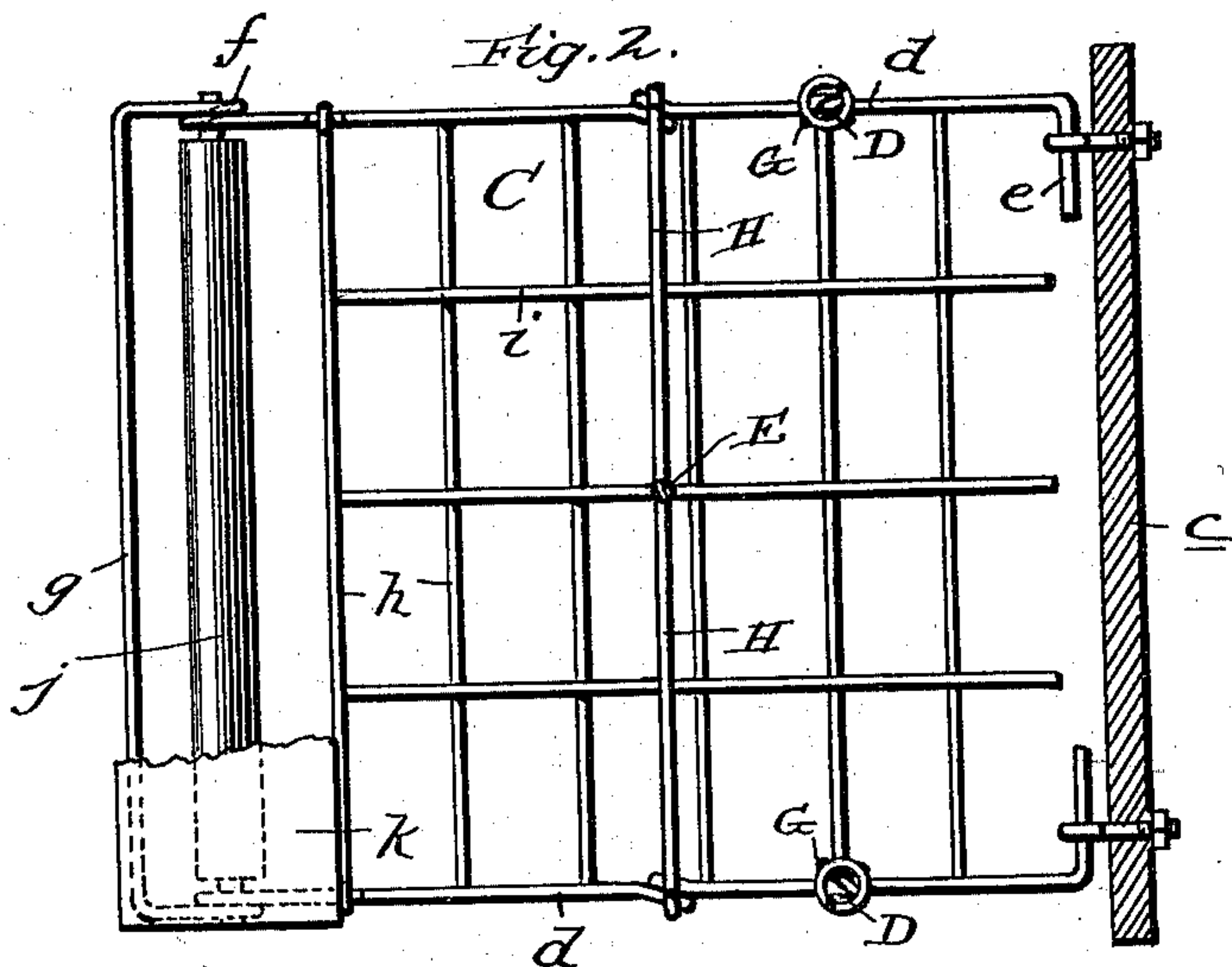
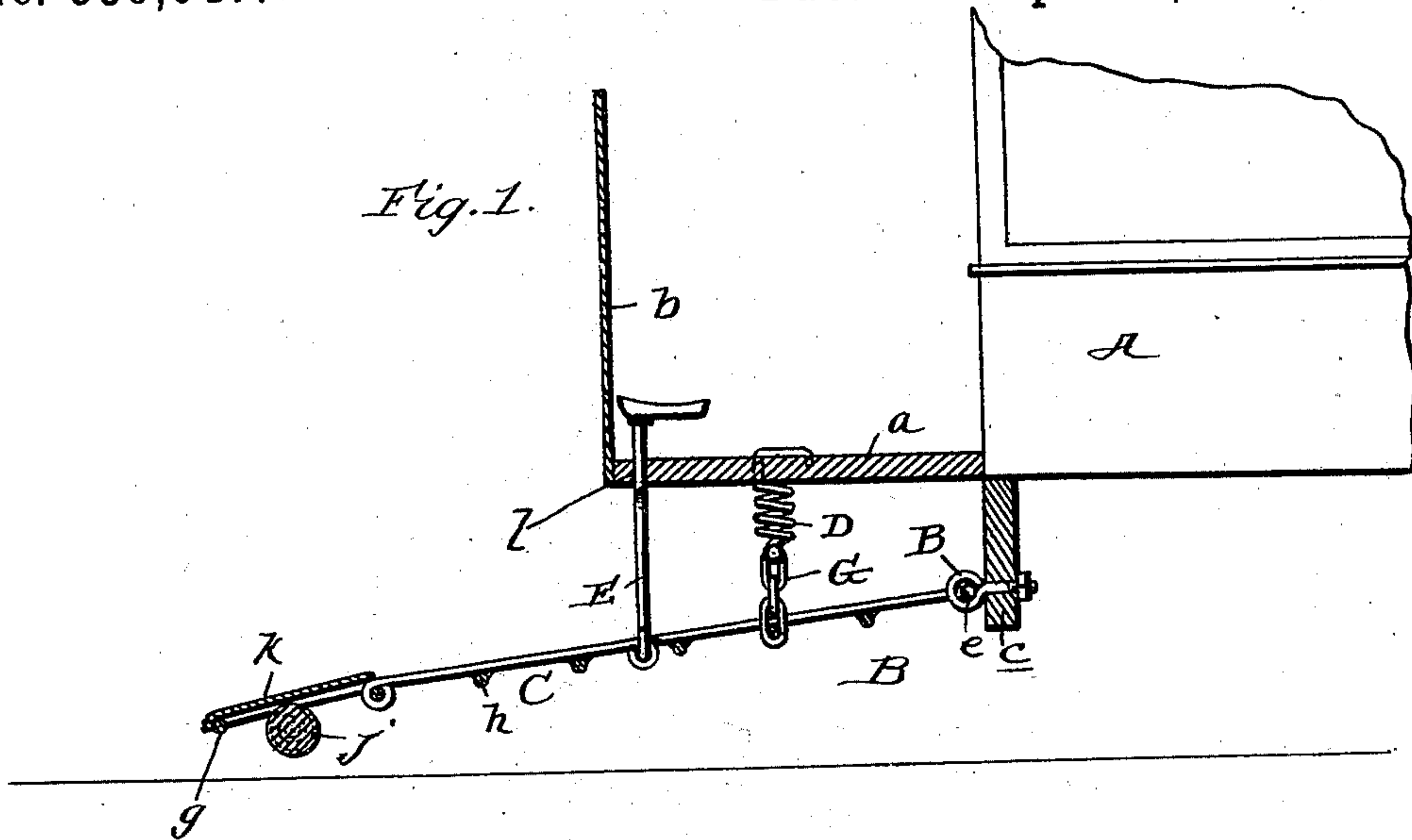


(No Model.)

C. E. WINGATE.
STREET CAR FENDER.

No. 559,047.

Patented Apr. 28, 1896.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES E. WINGATE, OF LAWRENCE, MASSACHUSETTS.

STREET-CAR FENDER.

SPECIFICATION forming part of Letters Patent No. 559,047, dated April 28, 1896.

Application filed February 18, 1896. Serial No. 579,722. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. WINGATE, a citizen of the United States, residing at Lawrence, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Street-Car Fenders; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in that class of car-fenders which are normally held above the track, so as not to strike obstructions on the track or retard the progress of the car, and which are designed and adapted to be depressed by the car-driver when a person is upon the track, so as to pick up such person and prevent him or her from getting beneath the wheels of the car; and it has for its general object to provide such a fender of an exceedingly cheap, simple, and efficient construction, and one which may be readily connected with cars such as at present in use without altering the construction of the same, and without the employment of skilled labor.

Other objects and advantages of the invention will be fully understood from the following description and claims, when taken in conjunction with the accompanying drawings, in which—

Figure 1 is a view, partly in elevation and partly in section, of a portion of a car-body equipped with my improved fender. Fig. 2 is a plan view of the fender with parts broken away, and Fig. 3 is a detail view of one of the springs and the chain connected thereto.

Referring by letter to the said drawings, A indicates a car-body, which has a platform *a* and a dashboard *b*, and a cross-beam *c* in rear of the platform.

B indicates eyebolts, which are secured to the beam *c* adjacent to the sides of the car-body, and C indicates my improved fender, which, if desired, may have its rear portion reduced in width to afford space for the track-scrapers (not illustrated) with which some cars are equipped. This fender C comprises the side bars *d*, which are preferably formed of heavy wire or wrought-iron and are provided at their rear ends with inwardly-directed branches *e*, and are coiled adjacent to their forward ends, as indicated by *f*, to form

journal-bearings, the forward cross-bar *g*, which is formed integral with the side bars *d*, the cross-bars *h*, which are connected at their ends to the side bars *d*, the longitudinal bars *i*, which are connected to the several cross-bars *h*, the roller *j*, which is mounted on a shaft arranged in the bearings *f* of the side bars *d*, and the plate *k*, which rests over the roller *j* and is connected to the cross-bars *g* *h* and the side bars *d* and rests over the roller *j*, as illustrated.

The inwardly-directed branches *e* of the side bars *d* are journaled in the eyebolts B, connected with the cross-bar *c* on the car-body, as shown, and the fender is normally held so that its forward end will rest above the track, as shown in Fig. 1, by the coiled springs D. These springs D are connected at their upper ends with the platform *a* of the car-body, as illustrated, and their lower ends are connected with the fender C by chains G, as illustrated. The lowermost links of the said chains G are permanently connected to the fender C, as shown, and any one of the other links is detachably connected with the lower ends of the springs C, so as to enable the said springs to normally hold the fender above the track, and in virtue of the chain connection it will be observed that the fender may be normally held at various distances above the track.

E indicates the pedal-bar, through the medium of which the car-driver or motorman is enabled to press and hold the forward end of the fender and the roller *j* down upon the car-track. This bar E extends down through an opening *l* in the car-platform, at or adjacent to the middle of the same, so as to permit the driver to conveniently place his foot upon it and press it down, and at its lower end it merges into the lateral and downwardly-extending arms H, which are connected at their lower ends with the fender C, as shown. This construction, as will be readily appreciated, permits of the usual draw-bar (not illustrated) being placed beneath the platform and between said platform and the fender C in the ordinary manner.

As will be readily observed, the fender is normally held above the track so as not to engage stones or other obstructions on the same or retard the progress of the car, and is

therefore not liable to be worn out after short use. When, however, a person is upon the track, the driver may quickly and easily depress the forward end of the fender and hold
 5 the same down so that the roller *j* will travel upon the track. When this is done, the forward end of the plate *k* will take beneath the body of the person upon the track, and the fender will hold the body until the car is
 10 stopped and will effectually prevent it from getting beneath the wheels of the car.

It will be observed from the foregoing that, while very strong and durable, my improved fender is very cheap and simple, and it will
 15 also be observed that the fender may be quickly and easily applied to cars such as at present in use without altering the construction of the same and without the employment of skilled labor. It will also be observed that
 20 my improved fender may be very quickly and easily brought into action, and that it will serve effectually to prevent a person on the track from getting beneath the wheels of the car.

25 Having described my invention, what I claim is—

1. The combination of a car having a platform and also having the transverse beam *c*, and the eyebolts connected to said beam, the
 30 fender comprising the side bars having inwardly-directed branches at their rear ends journaled in the eyebolts on the car and

coiled adjacent to their forward ends to form journal-bearings, the forward cross-bar *g*, connected to the side bars, the cross-bars con- 35 nected to the side bars at intervals in the length thereof, the transverse roller having its shaft arranged in the journal-bearings formed by the side bars, and the plate covering said roller and connected to the side bars 40 and to the forward cross-bar *g*, and the cross-bar in rear of the bar *g*, the coiled spring connected at one end with the fender and at its opposite end to the platform of the car and the pedal-bar arranged in advance of the 45 spring and loosely connected with the fender and extending up through the platform, substantially as specified.

2. The combination of a car having a platform, a fender connected in a hinged man- 50 ner with the car and arranged beneath the platform, coiled springs connected to the under side of the platform, chains, comprising a plurality of links, connected to the fender and having one of their links detachably con- 55 nected to the lower ends of the coiled springs, and a pedal-bar connected with the fender, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES E. WINGATE.

Witnesses:

JULIUS J. MCCORMACK,
 JOHN T. CROSBY.