

G. W. BILLINGS.  
RAILROAD SWITCH.

No. 184,693.

Patented Nov. 28, 1876.

Fig. 1.

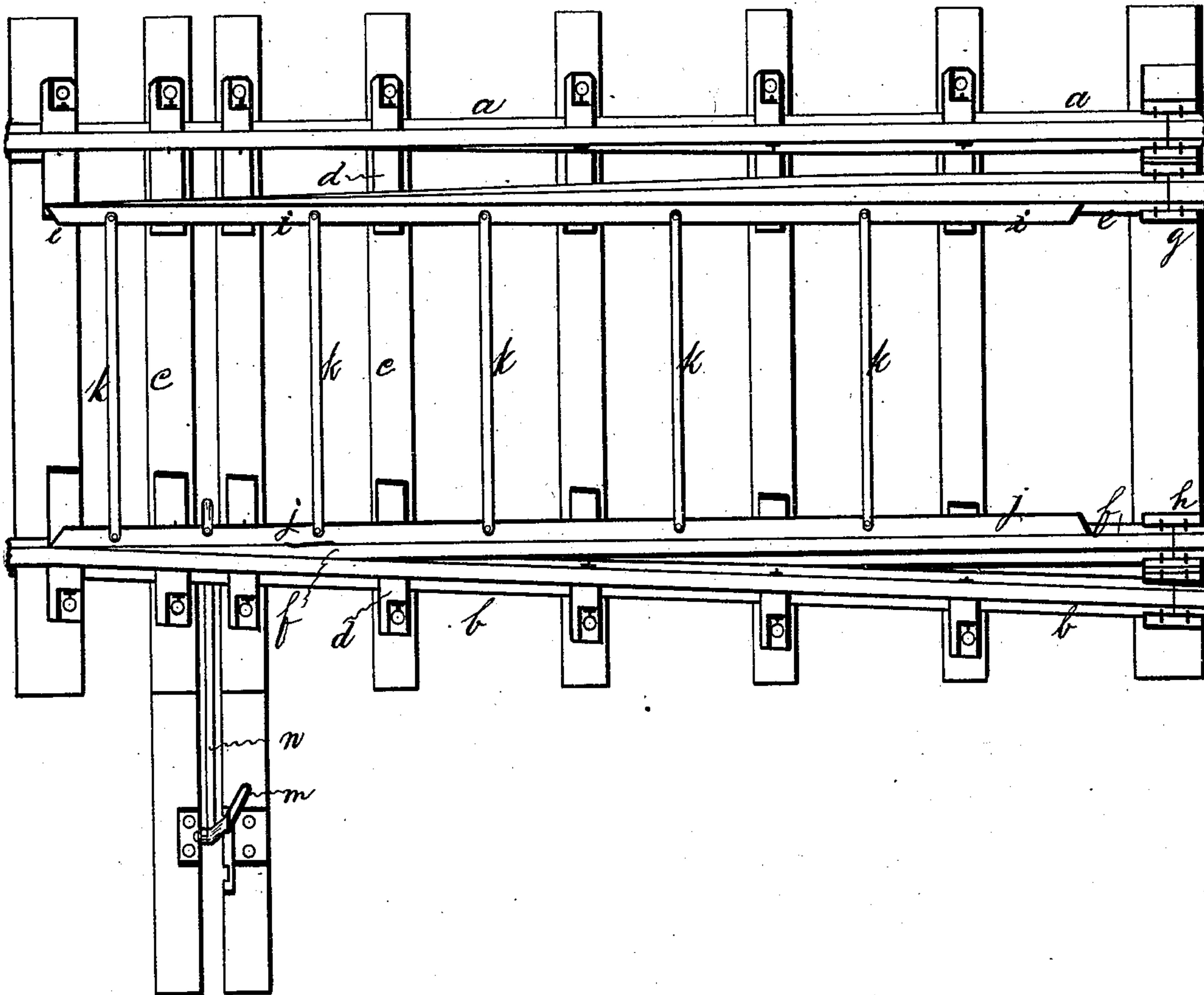
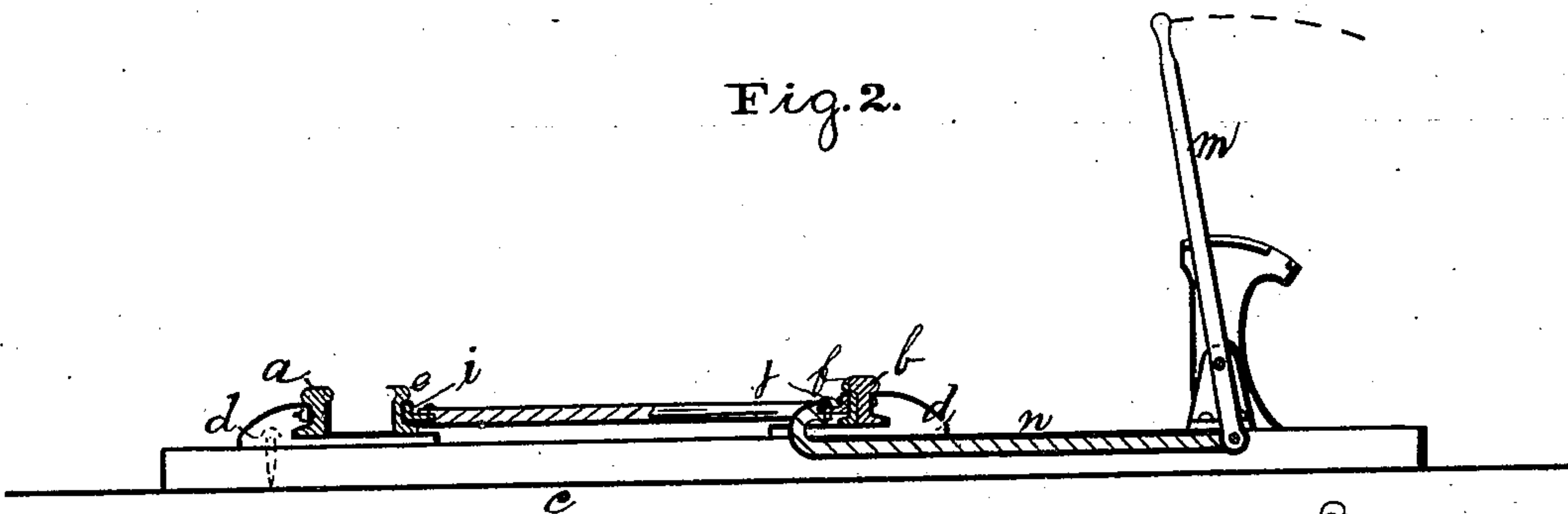


Fig. 2.



Witnesses:

Thos. A. Burt.  
J. E. Shaw.

Inventor:

Geo. W. Billings.

# UNITED STATES PATENT OFFICE.

GEORGE W. BILLINGS, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN RAILROAD-SWITCHES.

Specification forming part of Letters Patent No. **184,693**, dated November 28, 1876; application filed May 27, 1876.

*To all whom it may concern:*

Be it known that I, GEORGE W. BILLINGS, of Chicago, Cook county, Illinois, have invented an Improvement in Railroad-Switches, of which the following is a specification:

Letters Patent No. 137,050 were granted to me March 25, 1873, for a railroad-switch. In that patent I describe re-enforcing-bars in combination with the main rails, the latter being constructed with offsets or recesses to receive the ends of the switch-rails, respectively, when the main and switch rails are brought into contact. The recesses referred to are objectionable.

The invention herein described consists of a combination of tapered switch-rails with angle-bars of iron or steel, riveted or otherwise securely attached to the insides of said switch-rails, respectively, as hereinafter described, the object in view being the ability to construct the main rails without the aforesaid objectionable recesses; also, to prevent breakage of the switch-rails and the springing of these rails; and also to afford foundations other than the flanges of these rails as fastenings for the tie-rods of the switch.

In the drawings, Figure 1 represents a plan of a railroad-track and switch embodying my invention; Fig. 2, a transverse section of the same.

*a* and *b* are stationary rails attached to the cross-ties *c*, with or without chairs *d*, in any approved manner. *e* and *f* are movable sections of rails, they being flexibly attached, at *g* and *h*, to chairs, in the usual manner. Each of the sections *e* and *f* is tapered by being beveled off on its exterior side, so that when the front or free end of section *e* is brought into contact with the side of the stationary rail *a*, (or the front end of section *f* into contact with the stationary rail *b*,) said front end fits in a little under the head of the stationary rail, as shown. *i* and *j* are angle-bars of iron or steel, riveted or otherwise securely attached to the inner sides of the tapered rails *e* and *f*, respectively. The tie-rods *k* are attached to the angle-bars *i* and *j*, as shown.

The free ends of the switch-rails *e* and *f* are operated by a lever, *m*, and rod *n*, in the usual manner.

I make no claim to the tapered rails, separately considered; but

I claim—

The angular bars *i* and *j*, in combination with the tapered switch-rails *e* and *f*, substantially as set forth, for the purpose specified.

GEO. W. BILLINGS.

Witnesses:

THOS. A. BURTT,  
J. E. SHAW.