

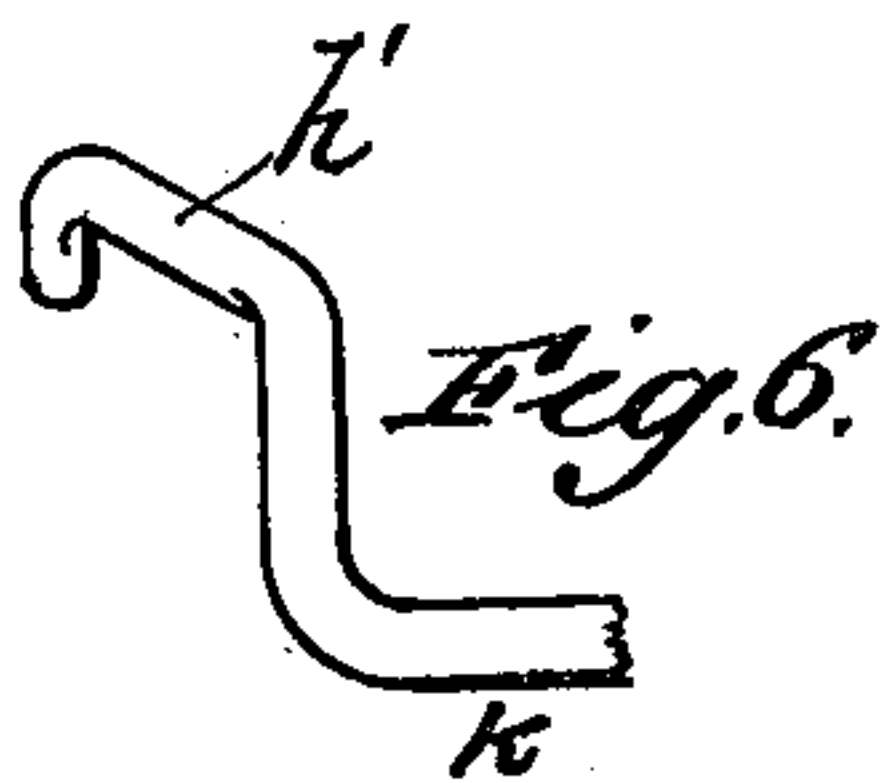
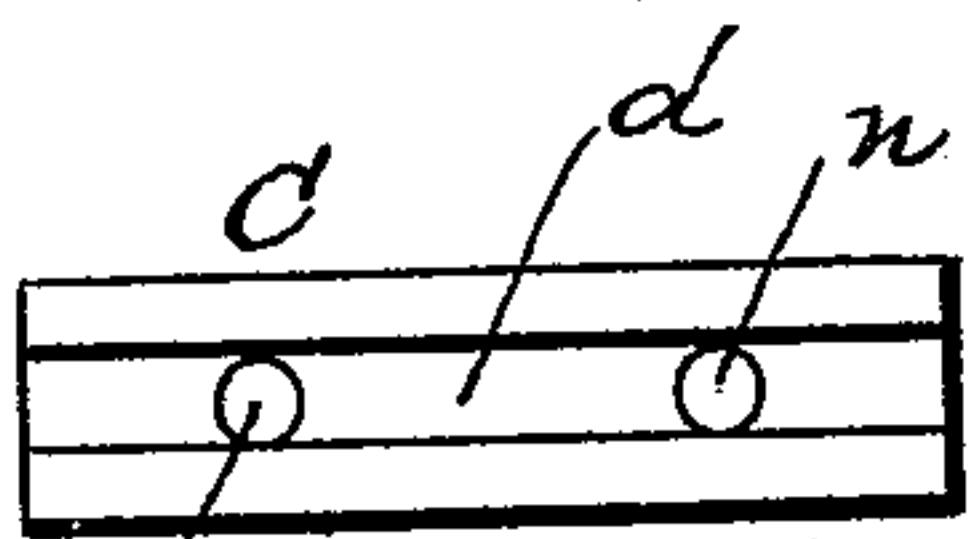
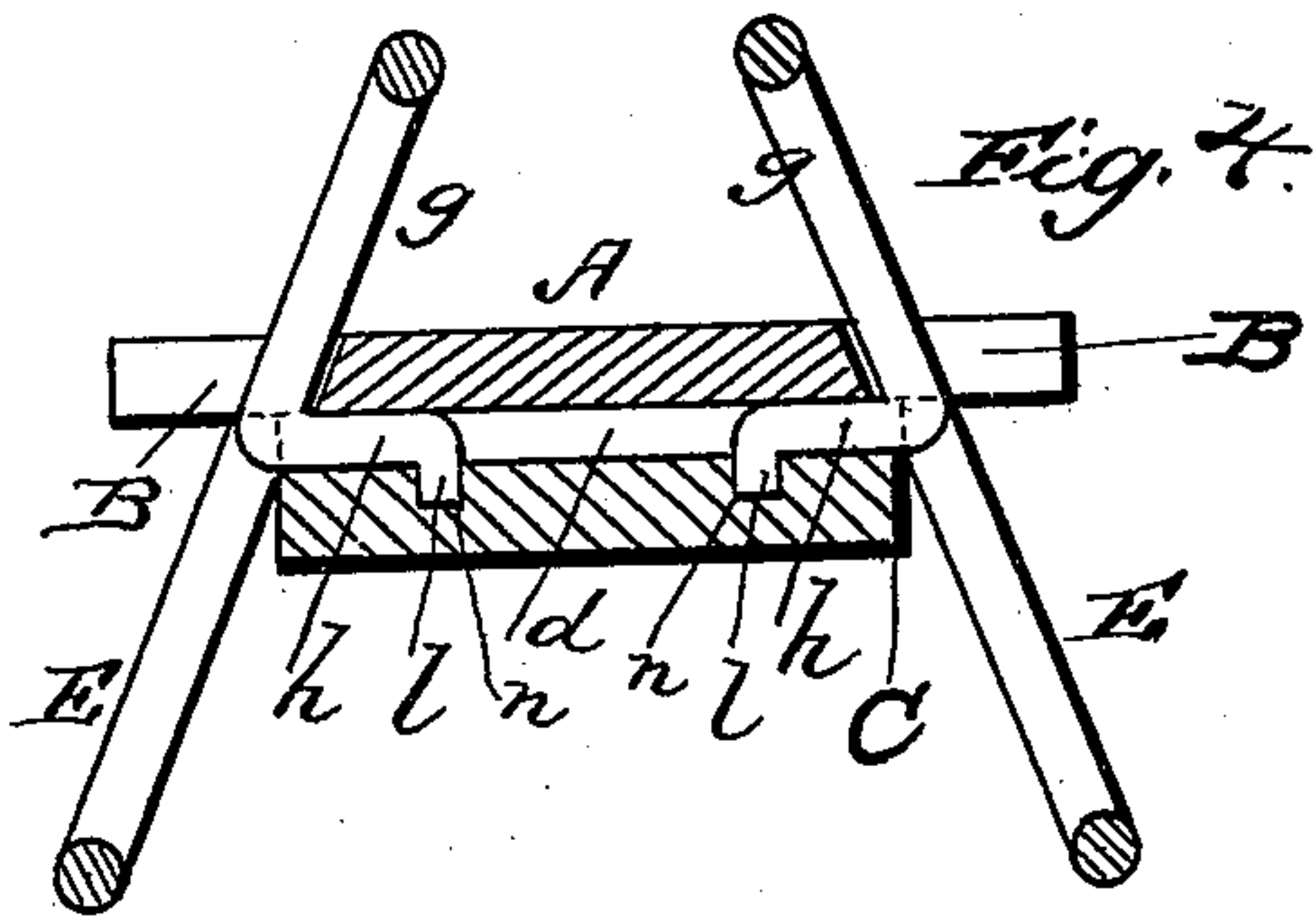
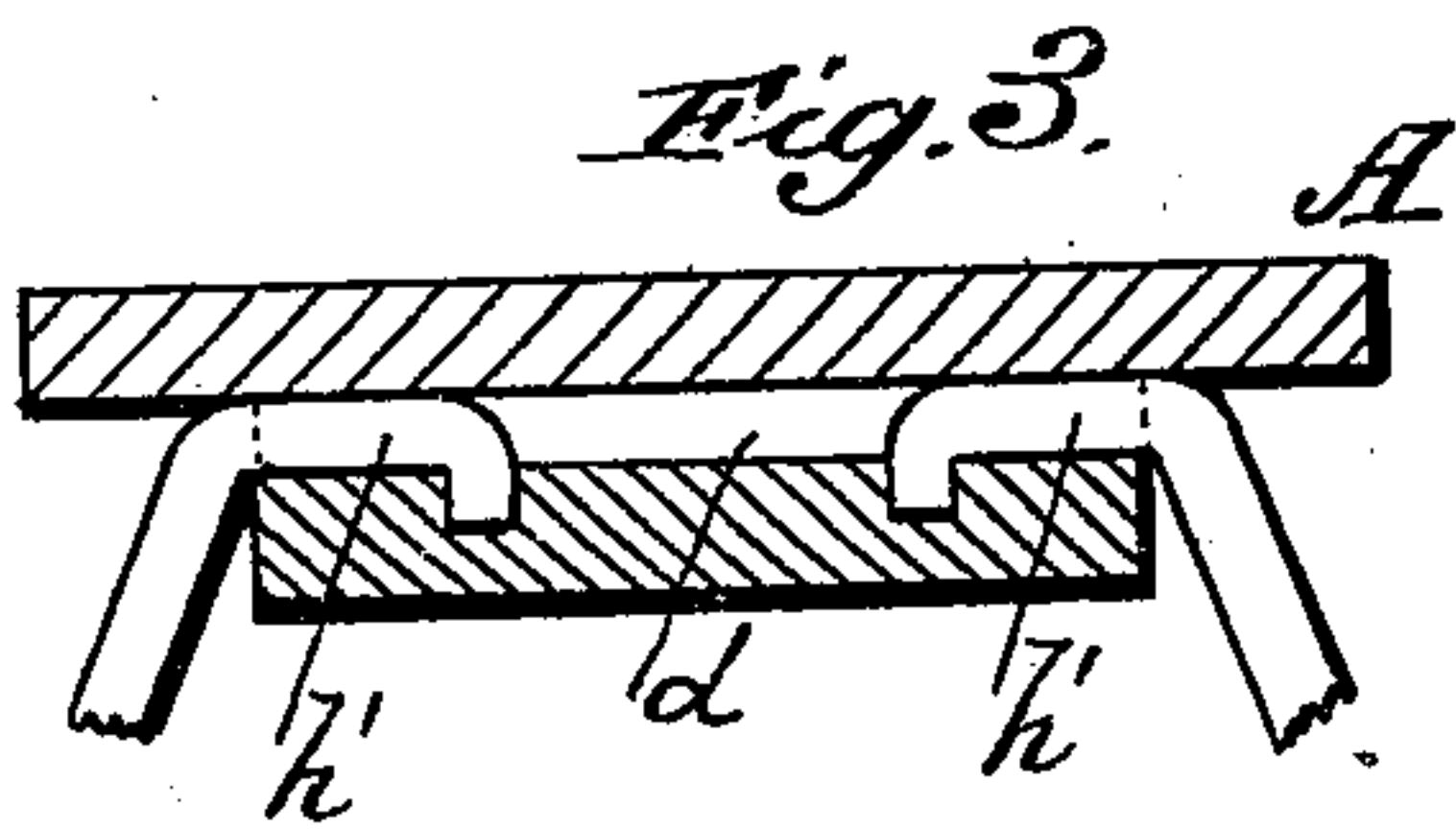
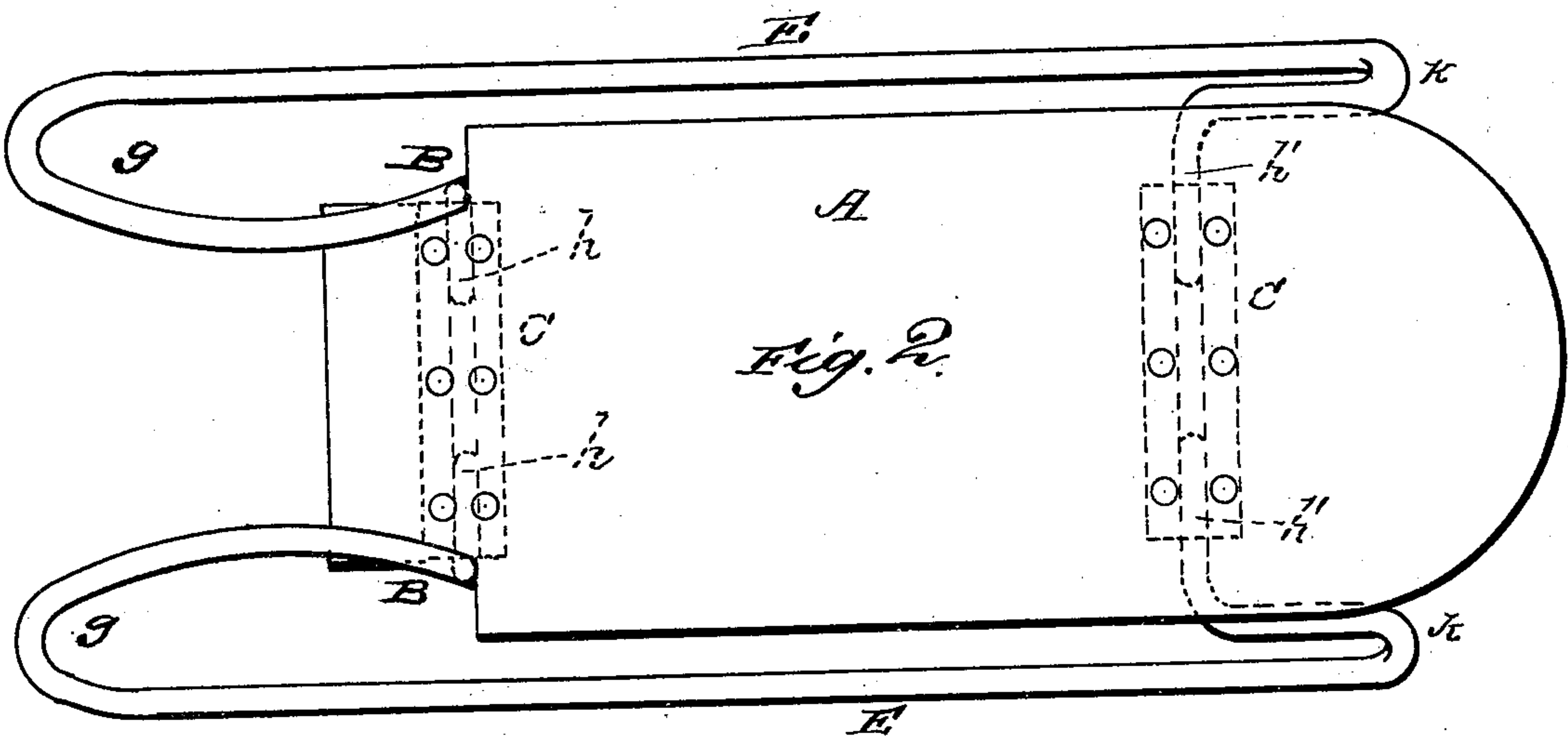
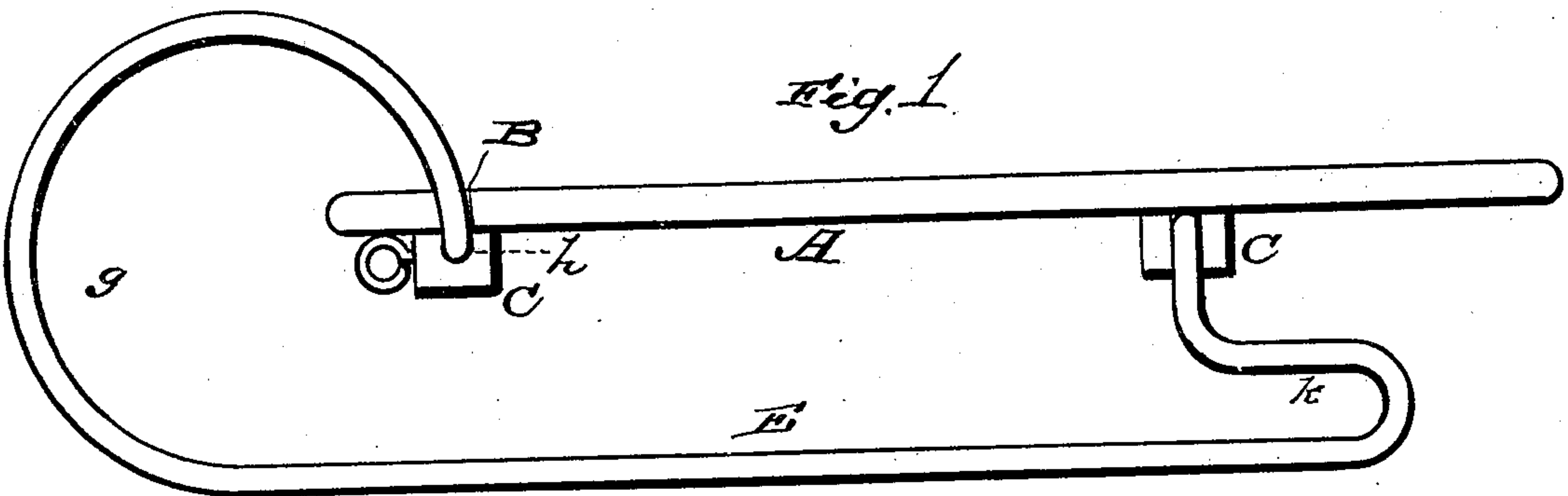
(No Model.)

R. W. WILLIAMS.

HAND SLED.

No. 308,543.

Patented Nov. 25, 1884.



WITNESSES

E. H. Bates.
P. H. Massi.

INVENTOR
R. W. Williams
by Anderson & Smith
his ATTORNEYS

UNITED STATES PATENT OFFICE.

ROBERT WM. WILLIAMS, OF GOSHEN, INDIANA.

HAND-SLED.

SPECIFICATION forming part of Letters Patent No. 308,543, dated November 25, 1884.

Application filed July 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, R. W. WILLIAMS, a citizen of the United States, residing at Goshen, in the county of Elkhart and State of Indiana, have invented certain new and useful Improvements in Hand-Sleds; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a side view of my sled. Fig. 2 is a top view. Figs. 3 and 4 are cross-sectional views, and Figs 5 and 6 are detail views.

This invention has relation to hand-sleds; and it consists in the construction and novel arrangement of devices, as hereinafter set forth, and pointed out in the appended claims.

In the accompanying drawings, the letter A designates the sled board or body, which is usually formed with the lateral notches or bearings B near its front end.

C C represent the front and rear transverse cleats, which are secured to the under side of the body A by screws or nails. Each cleat C is longitudinally grooved in its upper portion to provide seats, as at *d*, for the inwardly-turned ends of the runners. Each runner E is made of wrought-iron wire, the front portion, *g*, being curved upward and then rearward and downward, terminating in a lateral inwardly-turned arm, *h*, which is horizontal, the plane of the runner being usually oblique or inwardly inclined from bottom to top. The arm *h* terminates in a downwardly-turned lug, *l*, adapted to enter a recess, *n*, in the bottom of the groove *d* of the cleat C when the arm *h* is seated therein. At its rear end the runner E is curved upward and forward, terminating at its upper end in an inwardly-turned arm, *h'*, similar to the arm *h* of the forward curve of the runner, and having a similar downwardly-turned lug. The arms *h* and *h'* are in the same plane, and are seated in the grooves of the cleats, which are secured to the

body. When in position, the front of the body is suspended by the front curves, *g*, of the runners and supported on the rear curves, *k*, so that the body has some elasticity of action. The groove-seats of the front cleat terminate at the lateral notches or bearings B of the body in such manner that when the arms *h* are in position, engaged with said seats, the curves or bows of the runners engage said bearings. In this manner the strain is to a great extent taken off the cleat. The screw-eyes for the draft-rope may be secured to the front cleat or to the front of the body A.

I am aware that it is not new to form sled-runners, respectively, out of a single bar of metal, having their free ends connected to each other by a clip, and also that some have had their ends connected by lap-joints as well as miter-joints, and therefore do not claim any of these constructions broadly; but,

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. A sled-runner of iron having its front and rear ends curved upwardly and terminating in lateral inwardly-turned horizontal arms having downwardly-turned end lugs, substantially as specified.

2. The combination, with the iron sled-runners having front and rear curved portions terminating in lateral inwardly-turned arms having engaging-lugs, of the body and the transverse cleats extending the width of the body, having seat-grooves in their upper portions for said arms, substantially as specified.

3. The sled consisting of the body A, having the front lateral bearings, B, the grooved cleats C, and the metallic runners E, curved upward in front to form bows engaging said bearings, and having the inwardly-turned arms *h h'* in front and rear, constructed as shown, engaging the grooves of the cleats, substantially as specified.

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

ROBERT WM. WILLIAMS.

Witnesses:

FRANKLIN M. MCCRARY,
I. A. SIMMONS.