

(No Model.)

H. H. FRICK.
PORTABLE BRIDGE.

No. 596,867.

Patented Jan. 4, 1898.

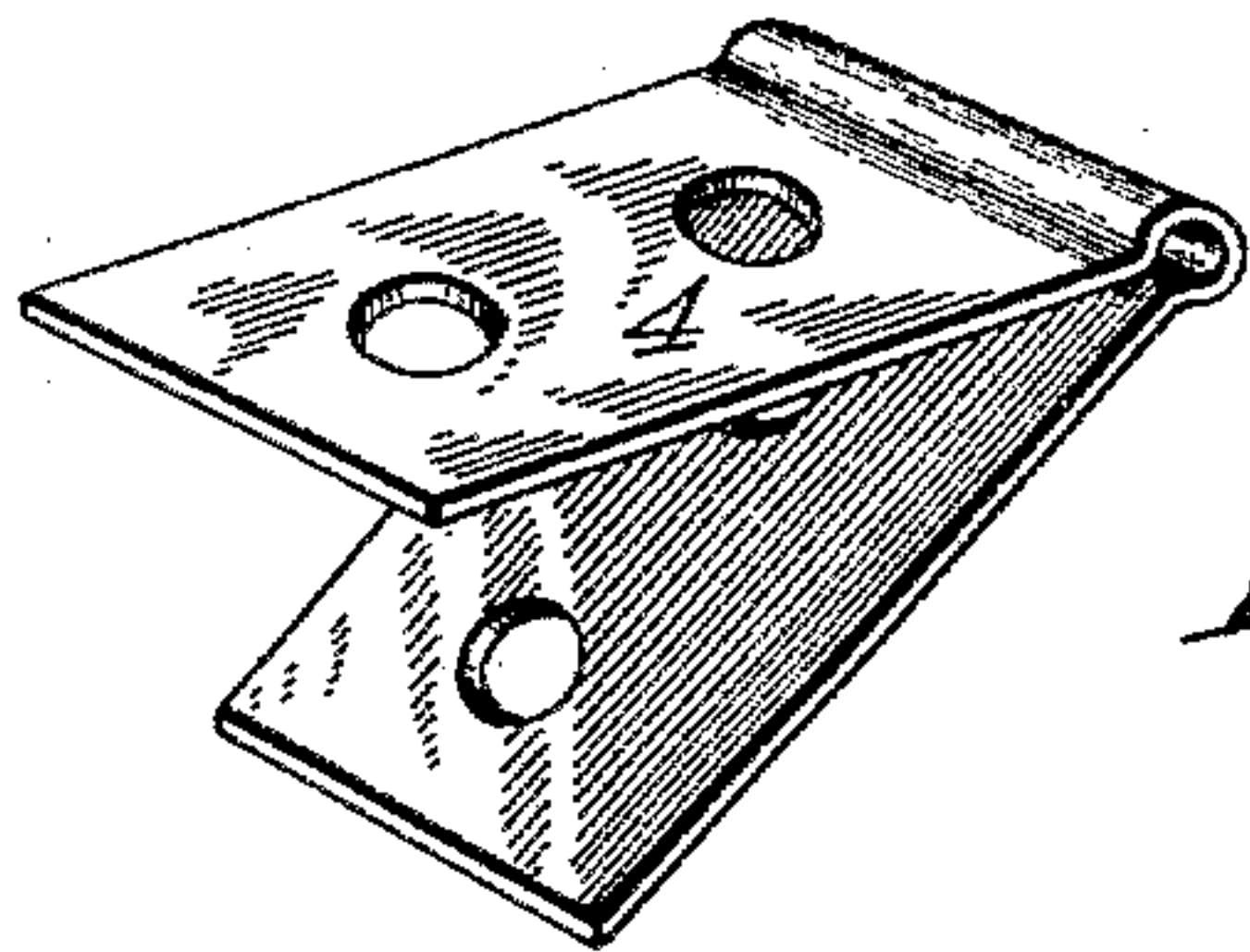
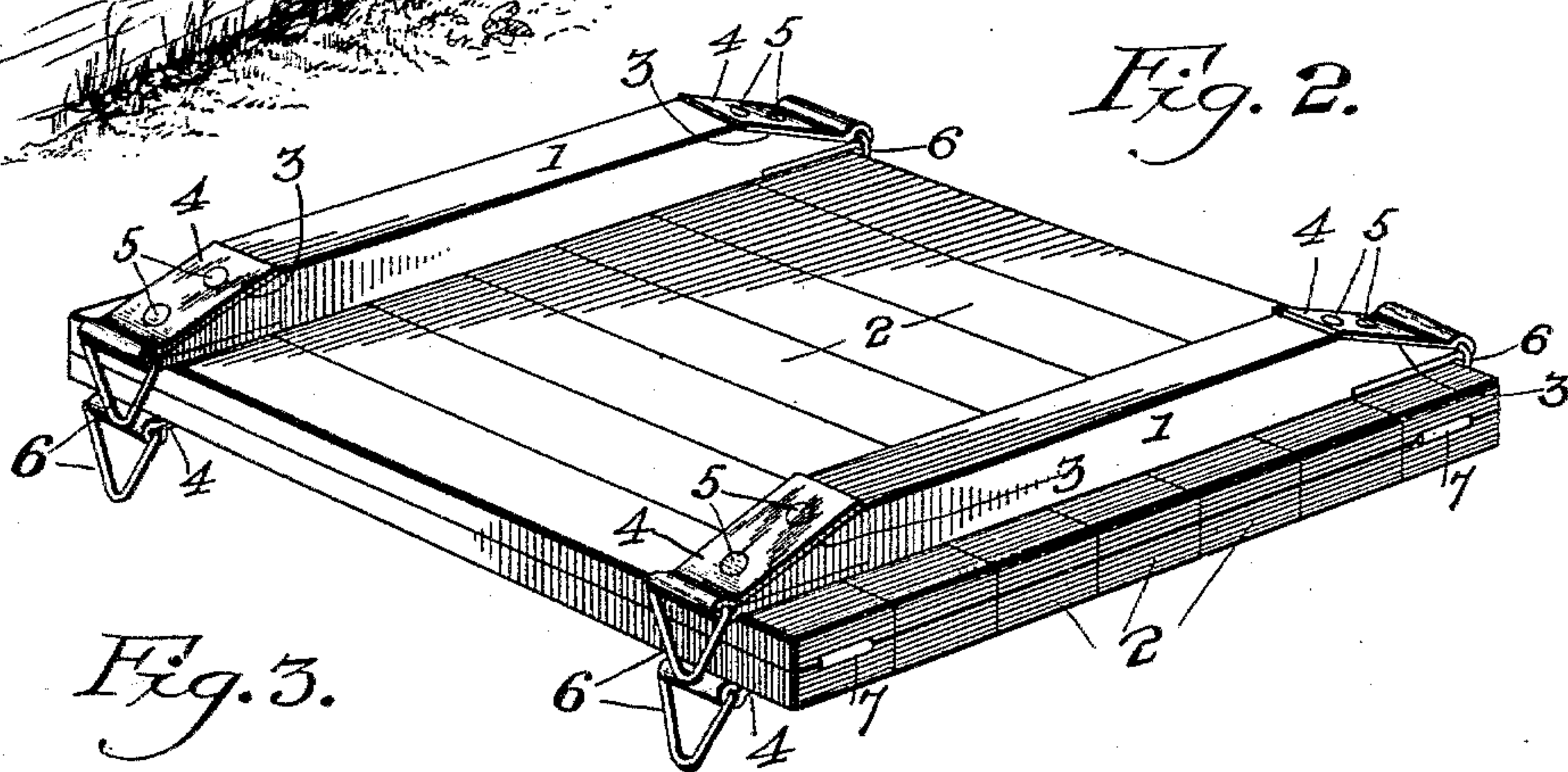
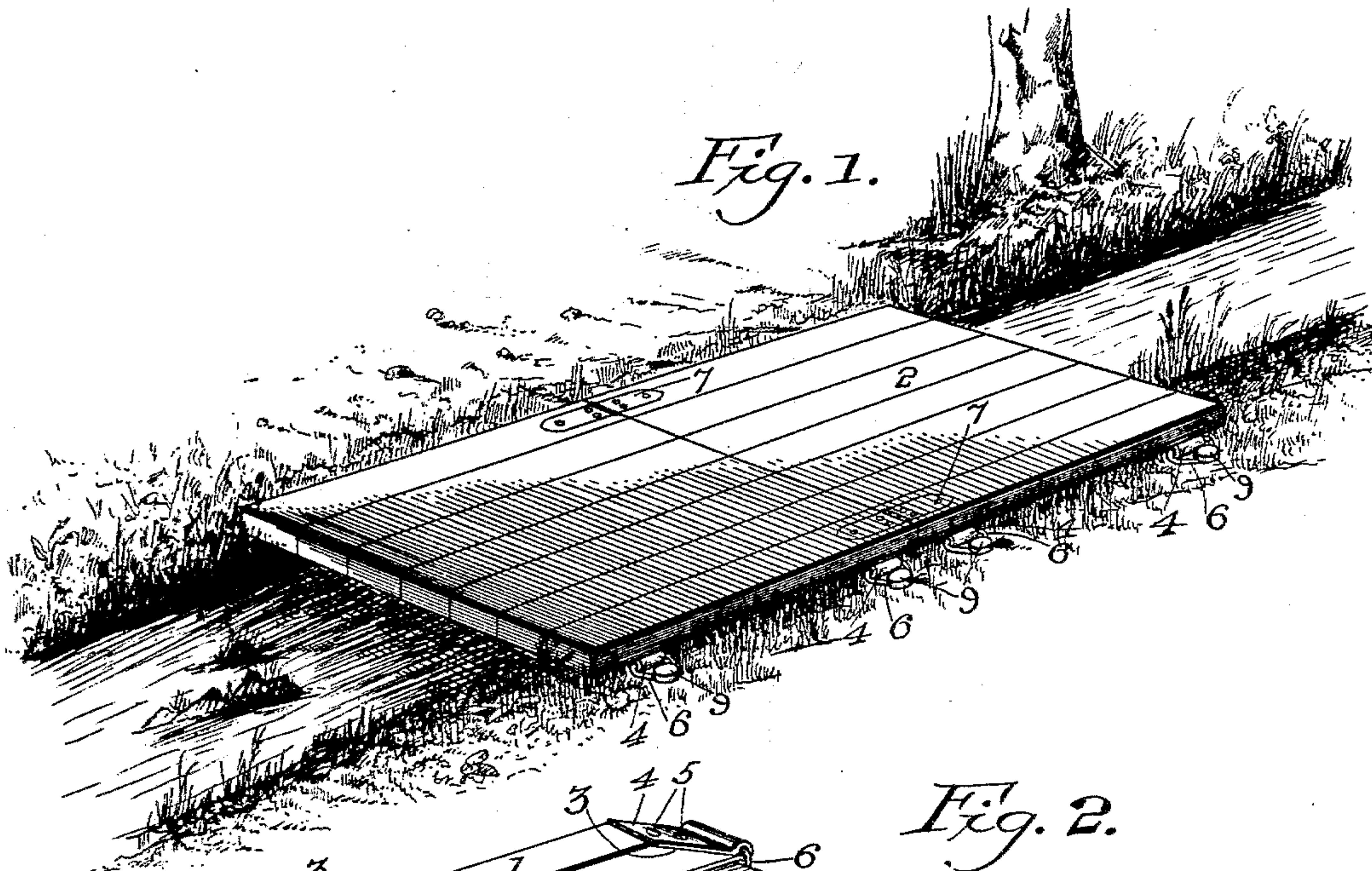
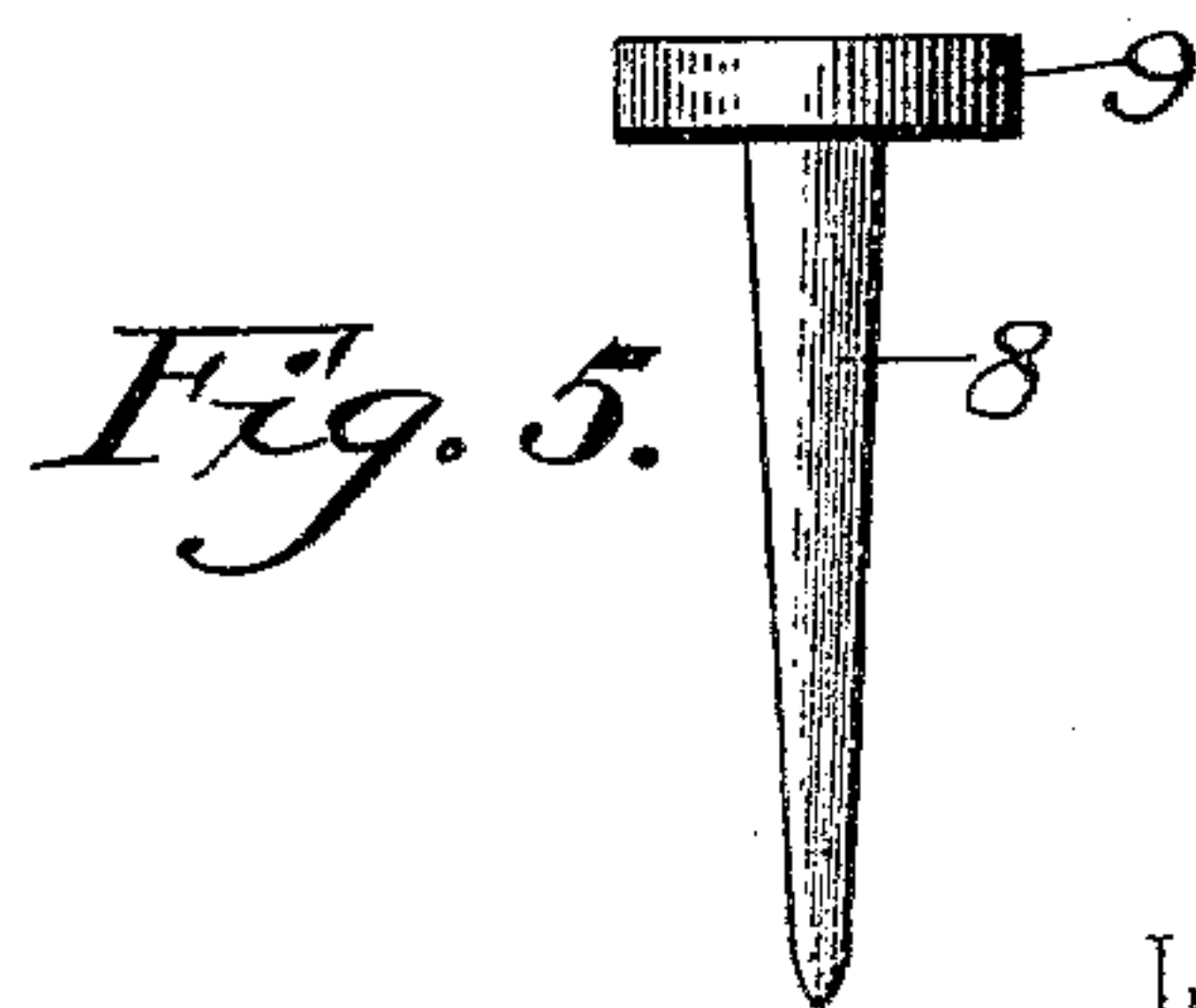


Fig. 4.



Inventor

Henry H. Frick.

Witnesses

A. R. Appleman
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UNITED STATES PATENT OFFICE.

HENRY H. FRICK, OF FRICKS, PENNSYLVANIA.

PORTABLE BRIDGE.

SPECIFICATION forming part of Letters Patent No. 596,867, dated January 4, 1898.

Application filed July 13, 1897. Serial No. 644,458. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. FRICK, a citizen of the United States, residing at Fricks, in the county of Bucks and State of Pennsylvania, have invented a new and useful Portable Bridge, of which the following is a specification.

This invention relates to portable bridges, its object being to provide a device of this character adapted to lie across hollows, gutters, or narrow streams in order that carts, wagons, or other vehicles may be hauled over it and which may be transported from place to place, as desired, by hauling it over the ground by horse-power or otherwise.

With these objects in view the invention consists of the several details of construction and combination of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my improved portable bridge extended across a narrow stream. Fig. 2 is a similar view of the bridge ready to be moved. Figs. 3, 4, and 5 are views of detached details.

Similar reference-numerals indicate similar parts in the several figures.

1 indicates cross-pieces of heavy timber, to which are firmly secured the planks 2, the latter being arranged transversely of the cross-pieces. The ends of the cross-pieces are beveled from their lower surface upwardly and outwardly, as indicated at 3, and these beveled ends are protected by a metal plate 4, bent into the form of a loop or strap and secured thereto by means of bolts 5 or other suitable fastening devices. In the loops formed by bending the plates 4 to embrace the beveled ends of the cross-pieces triangular-shaped links 6 are fitted, the purpose of which will be hereinafter referred to.

As illustrated in the drawings, the bridge is made of two similar sections, which are hinged together, as indicated at 7, in such manner that one section may be folded over onto the other section, as shown in Fig. 2. When in this position, the bridge is in condition to be moved. When the two sections of the bridge are open for use and extended across a stream, gutter, or similar place, it will sometimes be necessary to secure it against

movement lengthwise of the runners, and in order to accomplish this I employ locking-pins 8, preferably T-shaped, the stems of which are adapted to be driven into the ground through the links, and the heads 9 of which will engage the links 6 and thereby hold the bridge against movement longitudinally of the cross-pieces.

The object of beveling and reinforcing the ends of the cross-pieces is twofold: First, by this construction the cross-pieces will be adapted to lie against the inclined sides of the gutter, stream, or similar place and thus bring the edges of the outer planks practically flush with the ground, thereby avoiding the necessity of digging out places for the reception of the cross-pieces or of putting rails or dirt at each end of the bridge to form inclined ways up to the top of the planks. The second advantage is that the cross-pieces will serve as runners on which the bridge may be hauled over the ground, and the beveled ends will permit the runners to ride up over any obstructions which may be met with during the transportation of the bridge from one place to the other.

While I have illustrated the bridge as being made in two sections hinged together, I do not intend to limit myself to this particular construction, for the bridge might be made in one section, and where only a narrow bridge is required it might be equally advantageous. I prefer, however, to make the bridge in sections and hinge them together, for the reason that when the sections are folded over onto each other they will occupy much less space for transportation or storage.

The bridge may be easily dragged over the ground from place to place by hitching trace chains or ropes to the links 6 and using horse or manual power to haul it.

It will be understood that changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described the invention, I claim—

1. A portable bridge, consisting of a series of planks, cross-timbers to which the planks are secured, the ends of said cross-timbers being beveled upwardly and outwardly, reinforcing-straps secured on the beveled ends

of the timbers, and links carried by said straps, substantially as described.

2. A portable bridge formed in two sections hinged together and adapted to fold one upon the other, each section consisting of a series of planks, cross-timbers to which said planks are secured, the ends of said timbers being beveled upwardly and outwardly, and links secured to the ends of the cross-timbers, substantially as described.

3. A portable bridge, consisting of a series of planks, cross-timbers to which the planks are secured, the ends of said cross-timbers being beveled upwardly and outwardly, re-

inforcing-straps secured on the beveled ends of the timbers and links carried by said straps, combined with locking-pins adapted to be driven into the ground through said links and to engage the latter to hold the bridge in position, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HENRY H. FRICK.

Witnesses:

B. D. ALDERFER,
FLORA M. WEIKEL.