

(No Model.)

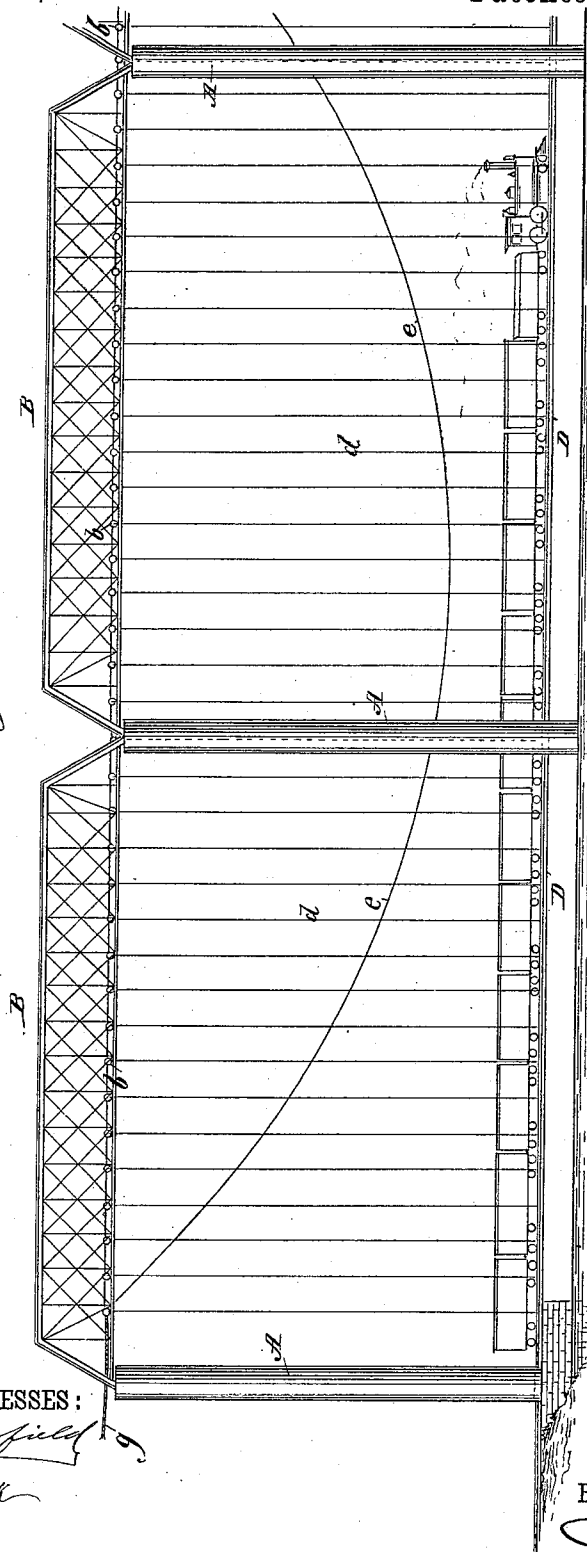
J. F. ANDERSON.
BRIDGE.

2 Sheets—Sheet 1.

No. 307,896.

Patented Nov. 11, 1884.

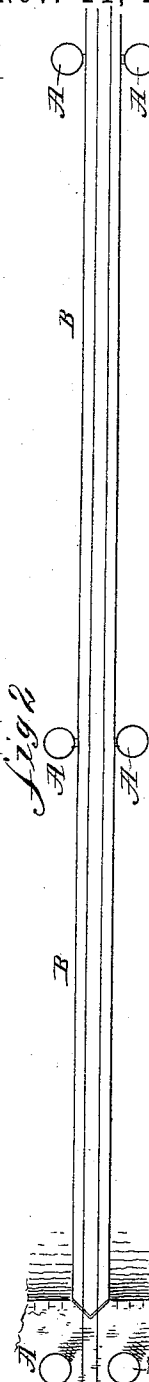
Fig 1



WITNESSES:

J. F. Anderson
C. Beddick

Fig 2



INVENTOR:

J. F. Anderson
BY *Munn & Co*
ATTORNEYS.

(No Model.)

J. F. ANDERSON.
BRIDGE.

2 Sheets—Sheet 2.

No. 307,896.

Patented Nov. 11, 1884.

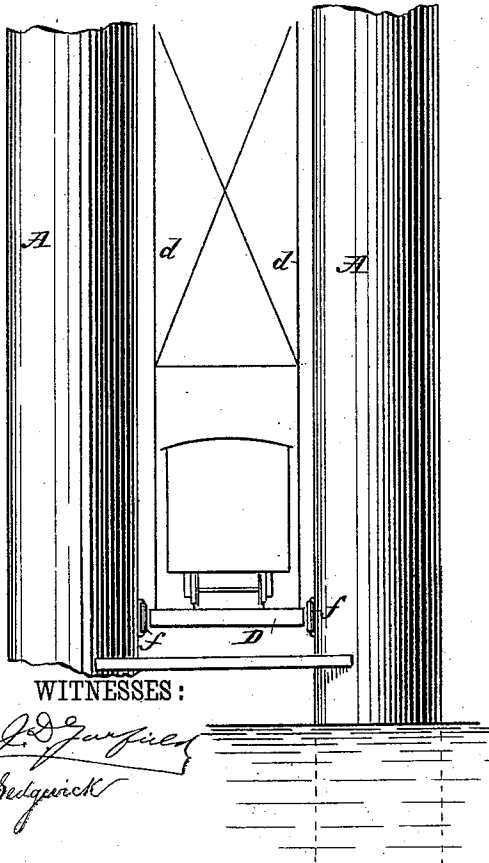
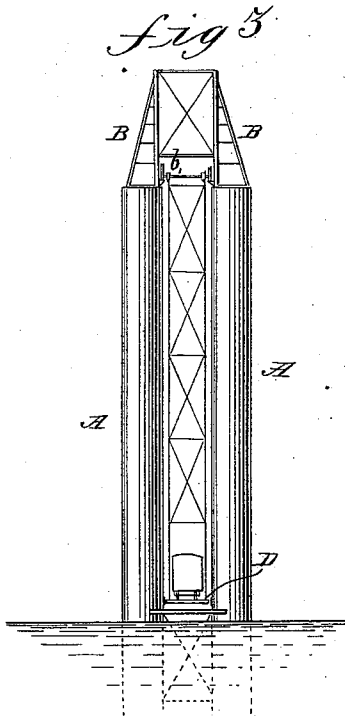
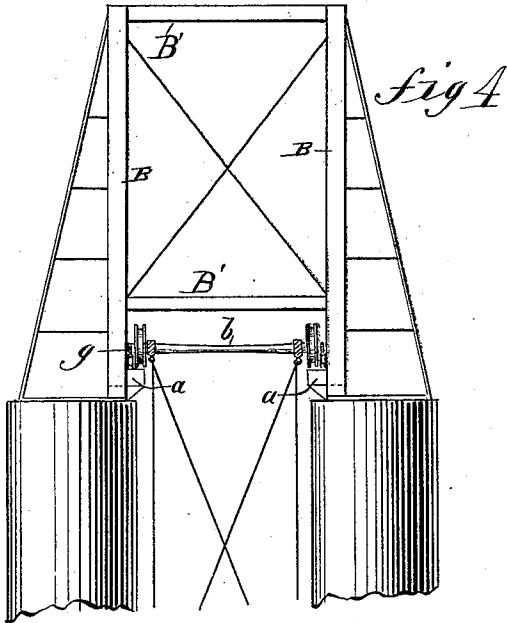
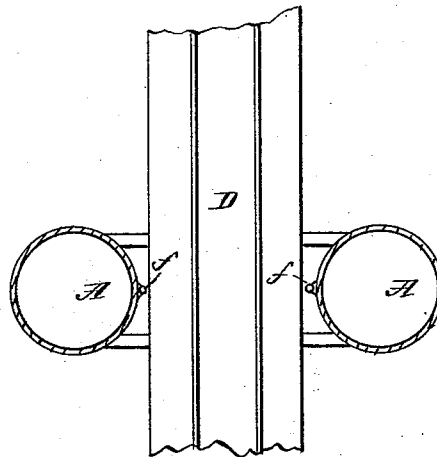


fig 5



WITNESSES:

J. D. Gump
Co. Delapack

INVENTOR:

J. F. Anderson
BY *Mum & Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN F. ANDERSON, OF NEW ORLEANS, LOUISIANA.

BRIDGE.

SPECIFICATION forming part of Letters Patent No. 307,896, dated November 11, 1884.

Application filed April 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. ANDERSON, of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and useful Improvement in Bridges, of which the following is a full, clear, and exact description.

The object of my invention is to facilitate the crossing or transfer of railroad-trains, wagons, and foot-passengers over rivers and other places where bridge structures are required, especially over waters where the passing of vessels is so frequent as to prevent the use of a draw-bridge; also, where the banks or surroundings of the river are such as to make it impracticable to construct a bridge of sufficient height to admit of ships passing under it, and also where there are difficulties in the use of transfer by ferry-boats, either on account of the distance between high and low water, on account of there being a great deal of shipping, or from fog and ice.

My invention consists in a transfer-bridge in which is employed, with slight alterations, the superstructure of ordinary bridges, and I combine therewith a platform suspended at the traffic-level from trucks upon an elevated railway, whereby the platform receiving the load can be moved from side to side of the river without interfering with the navigation of the river, all as set forth more particularly hereinafter.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation, Fig. 2 a plan view, and Fig. 3 an end elevation, of my improved bridge. Fig. 4 is an elevation, and Fig. 5 a sectional plan view, of the turn-piers in larger size.

The piers A, which may be of iron or of masonry, alone or combined, are placed at distances apart suitable for sustaining the superstructure. They are also divided or placed in pairs, as seen in Figs. 3, 4, and 5, and built of such height that the elevated structure upon them is high enough to allow vessels to pass beneath.

B B are vertical trussed girders, arranged parallel to each other upon said piers and firmly united together by transverse trusses

B' B'. The floor-beams are laid parallel with the chords, instead of at right angles, as usual, and upon the beams are stringers *a*, and on these are rails laid at any suitable distance apart.

b b are trucks with grooved or flanged wheels, connected at suitable distances, and from these trucks the platform D is hung by suspenders *d*, so that the platform is sustained at the grade-level of the street or railroad at the ends of the bridge. The suspenders *d* are to be properly braced transversely and also longitudinally of the platform by a storm-brace, *e*. The length of the platform should be equal to the distance of three piers, so that it will be at all times held laterally against wind-pressure by the divided piers between which it passes; and it should pass closely between the piers, friction-rollers being provided, as shown at *f*, to prevent rubbing. From the trucks *b* ropes *g* pass to suitable winding apparatus, that is to be operated by stationary engines for moving the trucks over the bridge from side to side of the river, and moving the platform therewith. The platform being at one side of the river, the train or other load will be run on and the trucks then started. When the other side is reached the train or load is run off, and the platform is ready for a return load. In this manner the transfer of trains, wagons, passengers, &c., can be readily and quickly accomplished without interfering with navigation, as the spaces between the piers will be free except where the platform is passing, and without the expense of building long and high approaches in order to give space for vessels or to clear floods and ice. The expense of construction and operation will be no more than a draw-bridge.

I do not limit or confine myself to the details of construction as specified, as they would be in practice largely determined by the location and the character of the traffic.

In place of using stationary engines, they may be attached to the trucks for movement therewith.

I am aware that platforms have been suspended between parallel rows of piers from trucks supported on girders, the said girders being supported on the said piers and being without a fixed connection, and I therefore do not claim such; but

What I do claim as new, and desire to secure by Letters Patent, is—

A shifting bridge comprising parallel rows of supporting piers, single vertical trussed
5 girders arranged parallel to each other upon said rows, and firmly united by transverse trusses, rails mounted upon said girders and

connected trucks to travel thereon below said trusses, and a roadway suspended from said trucks, substantially as described.

JOHN F. ANDERSON.

Witnesses:

A. W. LANGE,
P. A. ORY.