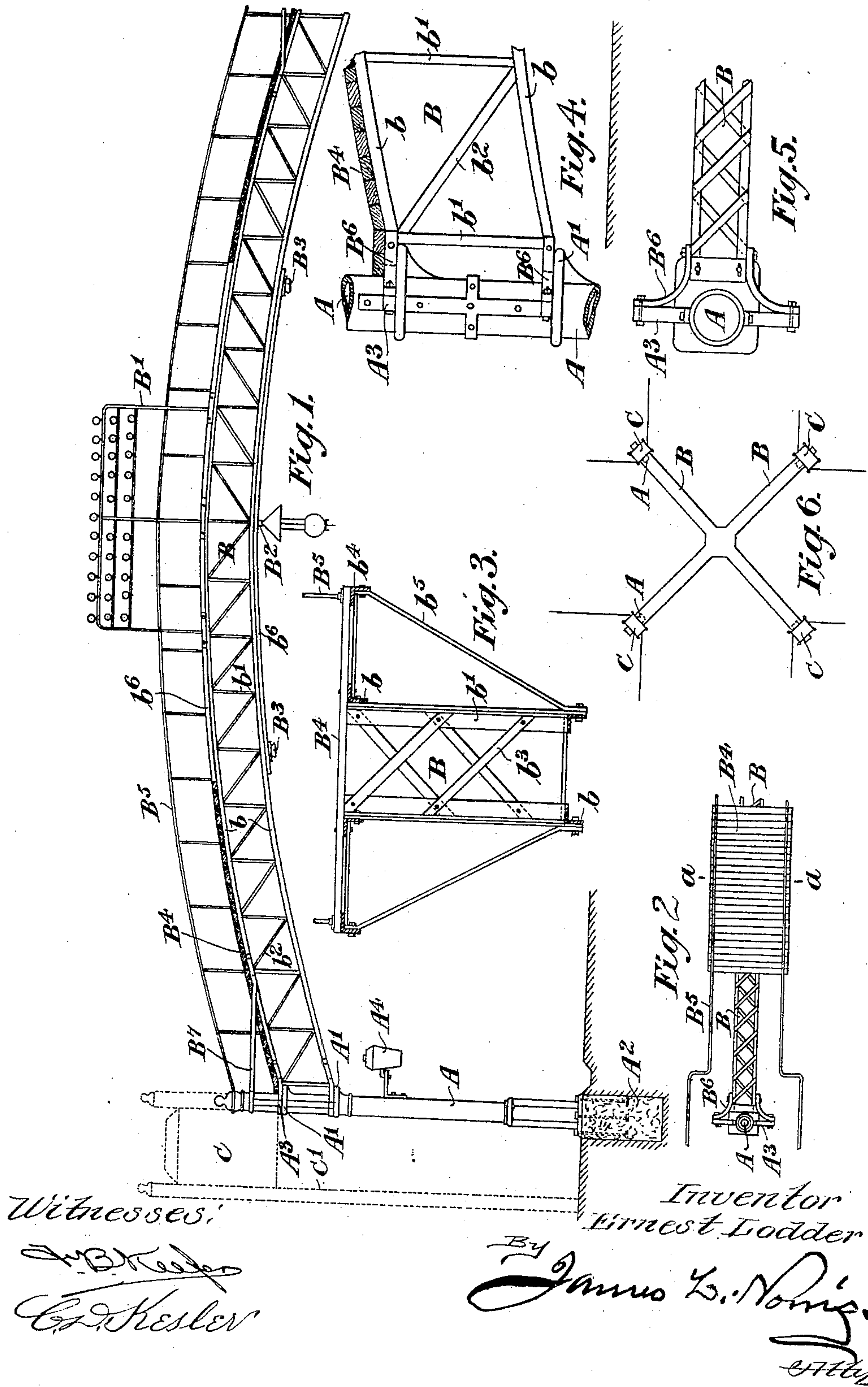


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E. LODDER.
SYSTEM FOR SUPPORTING CABLES, &c.
APPLICATION FILED JULY 13, 1905.



Witnesses:

W. B. Kesler
C. D. Kesler

Inventor
Ernest Lodder
By *James L. Norris*

UNITED STATES PATENT OFFICE.

ERNEST LODDER, OF DON, TASMANIA, AUSTRALIA.

SYSTEM FOR SUPPORTING CABLES, &c.

No. 818,269.

Specification of Letters Patent.

Patented April 17, 1906.

Application filed July 13, 1905. Serial No. 269,544.

To all whom it may concern:

Be it known that I, ERNEST LODDER, civil engineer, a subject of the King of Great Britain and Ireland, residing at Don, in the county of Devon, in the State of Tasmania, Commonwealth of Australia, have invented a certain new and useful System for Supporting Cables, &c., of which the following is a specification.

This invention consists of an improved system or means for supporting overhead telegraph, telephone, electric-light, electric-power, and electric-tram cables over streets and public ways by means of columns and girders, both of which latter may be utilized for various other purposes, such as for the erection of platforms for use by firemen to apply a hose from, or for placing escape-ladders upon as a means of escape or entry to buildings, or for overhead footways at street-crossings where traffic is much congested.

The invention will now be fully described, aided by a reference to the accompanying sheet of drawings, which illustrates it, in Figure 1, by a general side elevation, while Figure 2 is a part plan of one end as designed for a fireman's platform or overhead walk, with the deck or footway boards removed from the part nearest the column. Fig. 3 is a section at *a a*, Fig. 2, and Fig. 4, a side view; and Fig. 5, a plan of the end part of girders and showing means for securing it to top of its supporting-column, Figs. 3, 4, and 5 being shown to a larger scale than the other figures. Fig. 6 is a plan, shown to a reduced scale, of the arrangement of girders for providing a footway diagonally over the intersection of two streets where traffic is congested.

In carrying out my system two columns *A A*, respectively, preferably constructed of metal, are erected opposite each other at about the line of curbing at convenient distances apart along the street—say at distances varying from eighty to one hundred and fifty feet apart—and each pair of said columns are furnished with bracket-seatings *A'* to support an arched girder *B*, which stretches from column to column over and across the street, while the columns are shown seated on and bolted to a concrete base *A²*. A double-braced style of girder such as illustrated would be the most suitable, and it will be designed to present as small a surface as is possible to the wind. The girder shown is built of the four longitudinal angle-irons *b*, held apart by the vertical irons *b'* and further

secured by the angle-braces *b²* and held apart by the transverse braces *b³*, while *b⁴* designates the deck angle-irons supported by skeleton brackets *b⁵*. The central part of girder is further strengthened by the additional angle-irons *b⁶*. Said arched girder will be furnished with standards or frames *B'* to carry insulators for all wiring purposes, while the electric-light and tram cables will be carried on suitable brackets or hangers, such as *B²* and *B³*, respectively, on the under side of the bottom boom of the girders. The lighting-wire and electric lamps will, where possible, be over the center of the streets, while platforms, as *B⁴*, can be carried on each end of the girders for firemen's use. A light hand-rail, as *B⁵*, will also be arranged along the top of the girder for repairers' use and safety when the girder is employed to support an overhead footway. To meet extra wind-pressure and render greater stability laterally, the two ends of the girders can be "splayed" out with brackets, as *B⁶*, to bear against and be secured to suitable brackets *A³*, fixed onto columns, and a wrought iron or steel tie-rod *B⁷* be fixed from the column to the top boom of girder at each end. Clips can be used at each girder to sustain the high-current cables and prevent "sagging" and slackening for a long length, while in case of a break in the wire the repairing of same is simplified. Lamps, such as *A⁴*, either gas, oil, or electric, can be bracketed or otherwise fixed on the sides of the columns where required. When the girders are used at congested crossings, as shown in Fig. 6, for overhead footways as well as for the purpose hereinbefore described, a winding or other stairway or a lift *C* will be arranged at each end of girder to enable persons to reach the footway upon the girder. The dotted lines at end of Fig. 1 represent the lift arrangement, and in which case a further column *C'* becomes necessary.

The base portion of certain of the columns can be enlarged so as to serve as pillar letter-boxes, and, still further, pockets may be provided in the columns to be furnished with doors locked with special keys and serve to receive electric fire-alarms or police telephones or the like. This system of columns and girders will also be useful for decorative purposes on festive occasions by fixing rows of lamps, flags, or other decorative devices; also for advertising purposes by attaching neatly-enameled light skeleton letters placed face downward on the under side of the bot-

tom boom of the girders, and thus would not present any very material surface to the wind. Names of streets or other public notices can also be placed either on the columns or girders by suitable brackets or otherwise and in such position can be better seen than when placed on buildings in the ordinary way.

The centers of the diagonal girders at street-crossings will also be of service to surveyors as permanent data. A pole held on these would not be intercepted by street traffic, and a center punch-mark would retain the datum accurately and conveniently.

If so preferred, the columns A may be supported in a socket-piece sunk in the ground. Also when the girders are not required to carry much weight a light angle-iron bow-string girder may be employed.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a supporting means of the class described, a plurality of spaced columns, a

girder connected to the columns and having a platform throughout the longitudinal length of said girder, braces for supporting said platform, rails at opposite sides and extending the entire length of the platform, and a frame mounted above the platform for supporting insulator-wires.

2. In a supporting means of the class described, spaced columns, brackets secured to the upper extremities of each of said columns, a double girder connected to the brackets, a platform supported by the girder, hand-rails extending the entire length of said platform, a frame for supporting insulator-wires arranged a distance above the platform and standards for supporting said frame.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ERNEST LODDER.

Witnesses:

BEDLINGTON BODYCOMB,
W. J. S. THOMPSON.