(No Model.) 2 Sheets—Sheet 1.

W. F. ROTHENBERG.

ELECTRIC WIRE SUPPORTER.

No. 423,632. Patented Mar. 18, 1890.

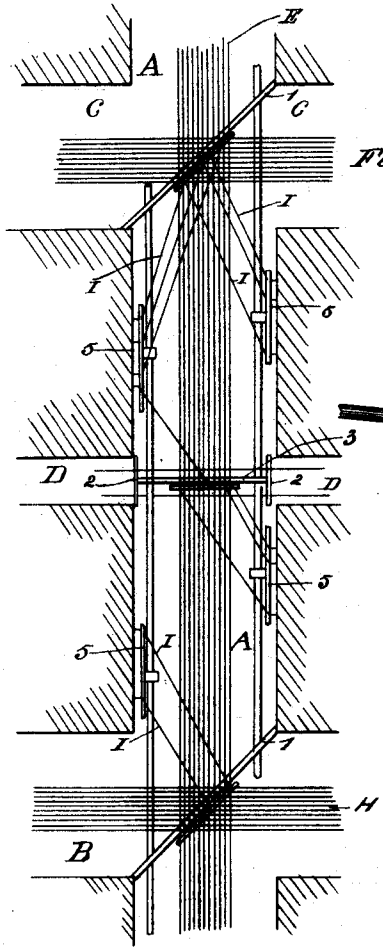


Fig. 1

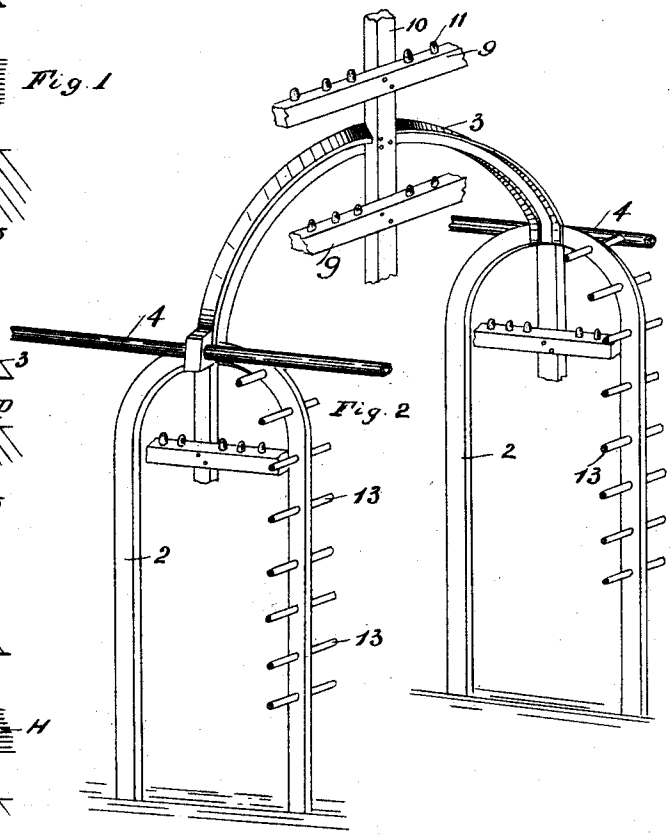


Fig. 2

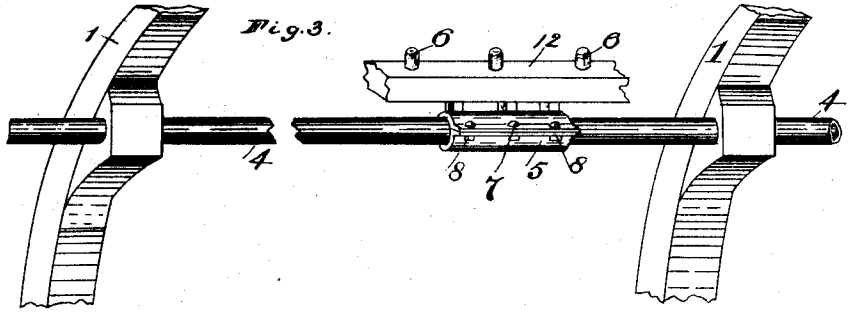


Fig. 3.

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(No Model.) 2 Sheets—Sheet 2.

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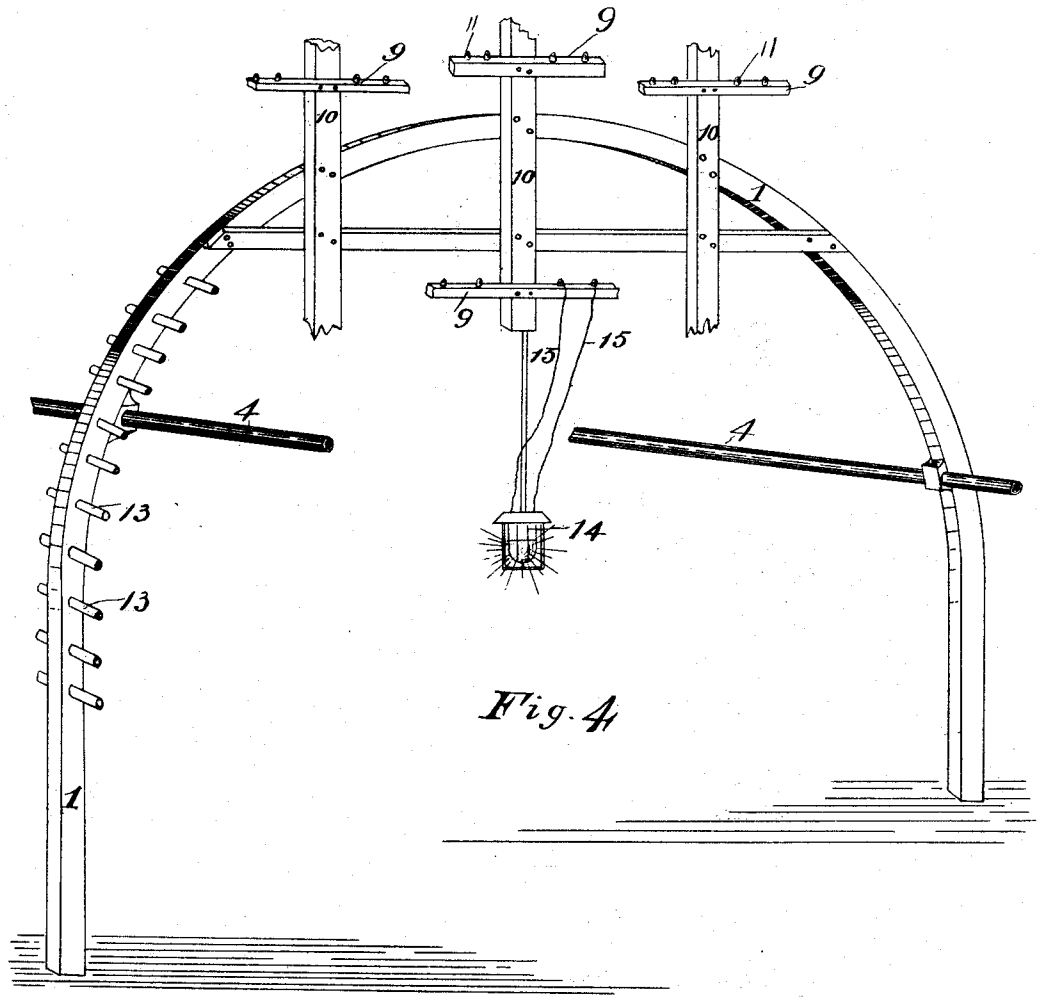


Fig. 4

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UNITED STATES PATENT OFFICE.

WILLIAM F. ROTHENBERG, OF DENVER, COLORADO, ASSIGNOR OF ONE-HALF TO JOSEPH TURRE, OF SAME PLACE.

ELECTRIC-WIRE SUPPORTER.

SPECIFICATION forming part of Letters Patent No. 423,632, dated March 18, 1890.

Application filed November 20, 1889. Serial No. 331,029. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. ROTHENBERG, a citizen of the United States, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Electric-Wire Supporters; 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 the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to an improved system of supporting electric-light, telephone, and telegraph wires in cities; and the object of my improvement is to provide a means whereby these wires may be supported above the center of the streets, thereby avoiding the inconvenience, annoyance, and danger to the public experienced at the present time by reason of the wires forming a perfect network around the buildings on the streets, compelling the fire companies when called upon to work at a great disadvantage in quelling conflagrations in our large cities, and also rendering it almost impossible to save human life from burning buildings thus hemmed in by wires. My improved system, by means of which I purpose to obviate this difficulty, is of simple construction, economical in cost, durable, efficient, and reliable; and it consists of the features, arrangements, and combinations hereinafter described and claimed.

In the drawings is illustrated an embodiment of my invention, in which drawings—

Figure 1 is a plan view illustrating my improved system on a street for a distance of one block. Fig. 2 shows in perspective the supporting structure at the alley-crossing between the streets. Fig. 3 is an enlarged perspective view showing a portion of two arches and the side bar connecting them. Fig. 4 is a perspective view of a large supporting-arch forming a part of my improved system.

In the views let the reference-numeral 1 indicate a large arch or frame extending from the sidewalk on one side of the street up over the street and down to the sidewalk on the opposite side. These large arches are supported in any suitable manner, and may be erected along the streets at any intervals desired. It is believed, however, that on streets which have no alleys a single arch 1 midway between the intersecting streets will be sufficient. In those cities having alleys I use at the alley-crossings the structure shown in Fig. 2, consisting of the small arches 2 2, joined by the connecting-arch 3, extending over the street.

In Fig. 1 let A designate a street intersected by the cross-streets B and C. Intersecting street A, midway between B and C, is an alley D. At each crossing of the main streets there is shown erected a large arch 1, connecting two diagonally-opposite corners. At the alley-crossing the small arches 2 2, joined by the connecting-arch 3, are used. These supporting-arches are connected by beams 4, one or more on each side of the street. These beams are provided at suitable intervals with adjustable sliding sleeves 5, to which are secured short bars 12, supporting insulators 6. Sleeves 5 are composed of two sections secured together by bolts 7 and fitted to the bars in such a manner that by loosening the nuts 8 on the bolts the sleeves may be moved along their supporting-bar and secured at any desired point thereon. The object of bars 4 and sleeves 5, with their attachments, is to support and guide the wires branching from the main groups supported above the center of the street to the buildings and offices along the line where branch wires are required. This is illustrated in Fig. 1, where E represents a central group of wires supported above street A and upon the arches heretofore described by means of the cross-bar 9, secured to vertical bars 10, made fast to the center of the arches. The cross-bars 9 are of course provided with suitable insulators 11, through which the wires of the group pass.

H designates other groups of wires suitably supported upon the arches by means of suitable vertical bars and cross-bars secured thereto, and in a manner similar to that just described for supporting group E. From

these main central groups of wires pass the branches I through the insulators 6 on bar 12, whence they are guided to any desired locality.

In Fig. 4 is shown an electric lamp 14, supported upon a bar 10, secured to an arch 1'. 15 15 are the wires connected with the lamp.

I have heretofore confined myself in my description quite closely to the precise mechanism shown in the drawings. It must be understood, however, that I do not limit myself to this exact mechanism, but claim the general system of supporting electric wires above the center of the streets by the use of supports having their base suitably anchored or secured at or near the curbstone on each side of the street. These supports are shown in the drawings as consisting of arches, and this form of structure I prefer; but yet I do not wish to limit myself thereto, since other forms of structures may be used for carrying out my principle. For instance, instead of the continuous arch the support might consist of two distinct beams extending from the sidewalk to the center of the streets, and any desired distance above the same, and there united at an angle and secured together in any suitable manner. In this form the beams of the support unite in a sharp angle at the top and form steep sloping sides to the curbstones. Suitable attachments may be secured to the supports in the shape of vertical bars provided with cross-bars and insulators, as used with the arched form of the supporter. It will also be observed that instead of only one arch or other support at the cross-streets, as shown in Fig. 1, there may be two arches or supports, one above the other, each support extending from one corner to the opposite diagonal corner.

Any number of vertical bars 10 and cross-bars 9 may be secured to the arches or supports.

A separate cross-bar 9, secured to a vertical bar 10, may be employed for each set of electric wires—that is, one bar 9 for the telegraph-wires, one for the telephone-wires, and another for the electric-light wires. It will probably be found preferable to support the electric wires on the lowest of those bars, as shown in Fig. 4, since in this position they will be the more accessible to workmen.

Having thus described my invention, what I claim is—

1. A system of supporting electric wires above the center of the streets, said system consisting of arched or other supports extending over the streets, said supports being provided with suitable attachments for maintaining the wires in position thereon, and one or more side bars secured to the arches or other supports on each side of the street for supporting and guiding the branch wires extending from the main group to the offices or buildings along the street, substantially as described.

2. A system of supporting electric wires above the streets of cities and about midway between the sidewalks, said system consisting of arched or other supports erected over the streets and attachments for maintaining the central group of wires thereon, and one or more side bars secured to the arches or other supports on each side of the street, each bar 4 being provided with an adjustable support for the branch wires extending from the main group to the offices or buildings along the street, substantially as described.

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

WILLIAM F. ROTHENBERG.

Witnesses:
WM. MCCONNELL,
JOSEPH TURRE.