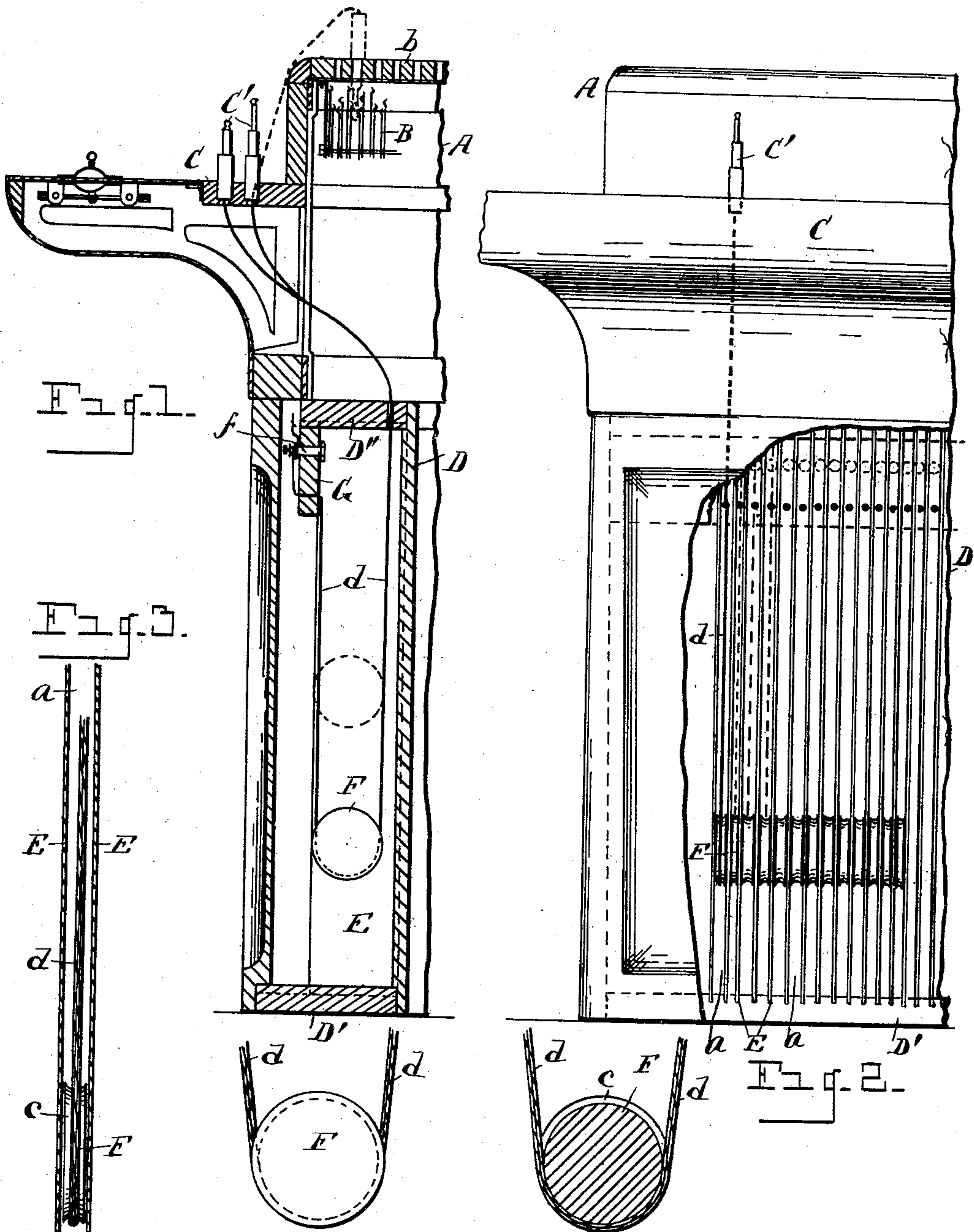


(No Model.)

F. C. HUGHES.
CORD WEIGHT FOR TELEPHONE SWITCHBOARDS.

No. 605,671.

Patented June 14, 1898.



WITNESSES

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CORD-WEIGHT FOR TELEPHONE-SWITCHBOARDS.

SPECIFICATION forming part of Letters Patent No. 605,671, dated June 14, 1898.

Application filed September 27, 1897. Serial No. 653,105. (No model.)

To all whom it may concern:

Be it known that I, FRED C. HUGHES, a citizen of the United States, residing at Detroit, in the county of Wayne, State of Michigan, have invented certain new and useful Improvements in Cord-Weights for Telephone-Switchboards; 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 of reference marked thereon, which form a part of this specification.

This invention relates to cord-weights for telephone-switchboards; and it consists in the construction and arrangement of parts hereinafter fully set forth, and pointed out particularly in the claims.

The object of the invention is to provide simple and efficient means for keeping taut the slack cords of the connecting-plugs of a telephone-switchboard between the terminals of said cords and said plugs, to obviate the entanglement of said cords, and to provide for the placing of a great number of said weights side by side within a very small space. This object is attained by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view of a portion of a telephone-switchboard embodying my invention. Fig. 2 is a detail in elevation, parts being broken away, showing the arrangement of my improved cord-weights. Fig. 3 is an enlarged detail showing a single weight in its confining-space and the cord passing thereunder. Fig. 4 is an elevation of the weighted disk. Fig. 5 is a sectional view through said disk, showing the cord lying in the groove in the periphery thereof.

In the art of telephone-switchboard construction the cord-weights commonly employed consist of weights of various shapes which are hung from the journal of a pulley around which the cords pass. These weights usually swing from the cords within a common space, and besides becoming often entangled they occupy a great deal of room. To economize this space so as to enable the placing of a large number of weights within a small compass, and thereby enabling the

placing of a large number of spring-jacks within a comparatively small area, is the prime object of the construction shown; in which—

A designates the switchboard, having apertured strips *b*, through which the plugs are adapted to be inserted in the spring-jacks B.

C designates a ledge having sockets therein in which the plugs *C'* are adapted to be seated when not in use.

The base or framework supporting the switchboard comprises an inner panel *D*, a bottom cross-piece *D'*, and an upper cross-piece *D''*. These parts are so arranged as to form a trilateral frame which carries the dividing-partitions *E*, that separate the weights and cords. These partitions are preferably formed of thin sheet metal and are retained in place by means of grooves formed in said trilateral frame, which receive the edges of said partitions, as clearly shown by dotted lines in Fig. 1. The arrangement is such as to enable said partitions to be slid inward into said grooves, so as to hold said partitions vertically parallel and at an equal distance apart from top to bottom, forming a series of vertical ways *a* between their adjacent faces. The spaces or ways between said dividing-partitions are such as to snugly receive the weighted disk *F*, the sides of which are embraced by said partitions so as to confine the weights within said spaces, but at the same time permit of their vertical movement therein. These weights consist of circular disks formed of lead or other substance having a requisite specific gravity and are provided with circumferential grooves *c*, adapted to receive the cords *d* of the plugs. These cords depend within the spaces between said partitions, and the weights *F* lie within the depending loops of said cords, which pass around the lower arcs of said disks, as clearly shown in Figs. 1, 4, and 5.

On referring to Fig. 1 it will be seen that a supporting-strip *G* crosses the front of the frame and is provided with a series of cord-terminals *f*, to which are attached one of the ends of the cords *D*. The other ends of said cords pass upward through the upper cross-piece *D''* and are attached to the plugs *C'*, by which arrangement as the cord is drawn outward in the operation of placing

the plug in a spring-jack, as shown by dotted lines in Fig. 1, the weight lying in said cord is carried upward in its confining-space, rolling upon said cord as it rises, maintaining at all times a uniform tension upon said cord and withdrawing the cord within its confining-space when the plug is withdrawn from the spring-jack.

The dividing-partitions, between which the weights are confined, not only serve as guides for said weights in their vertical movement, but also serve to prevent said weighted disks from running off of said cords, as the proximity of said partitions to the face of the weighted disks obviates the possibility of the passing of the cord between the disk and partition, producing a simple, inexpensive, and efficient cord-weight, which is of such a character as to enable the placing of a large number side by side within a small space.

Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a cord-weight for telephone-switchboards, the combination of a narrow confin-

ing-way composed of smooth parallel plates, a thin heavy disk located in said way whose opposed faces are smooth and stand contiguous to the walls of said way, and the cord passing around the arc of said disk in said way and supporting said disk.

2. In a cord-weight for telephone-switchboards, the combination with a suitable supporting-frame, a series of dividing-partitions arranged parallel within said frame forming a series of vertical ways between their adjacent faces, a series of disks located in said ways and having peripheral grooves, the opposed faces of said disks being free from elevations and standing contiguous to the vertical walls of said ways, the looped cords depending within said ways passing around the arcs of said disks and supporting said disks within the depending loops thereof.

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

FRED C. HUGHES.

Witnesses:

WM. J. BLACK,

W. L. POST.