BURNAP & BRASSINGTON.

Telegraph-Wire Insulator.

No. 58,594. Patented Oct. 9, 1866.

Fig. 1.

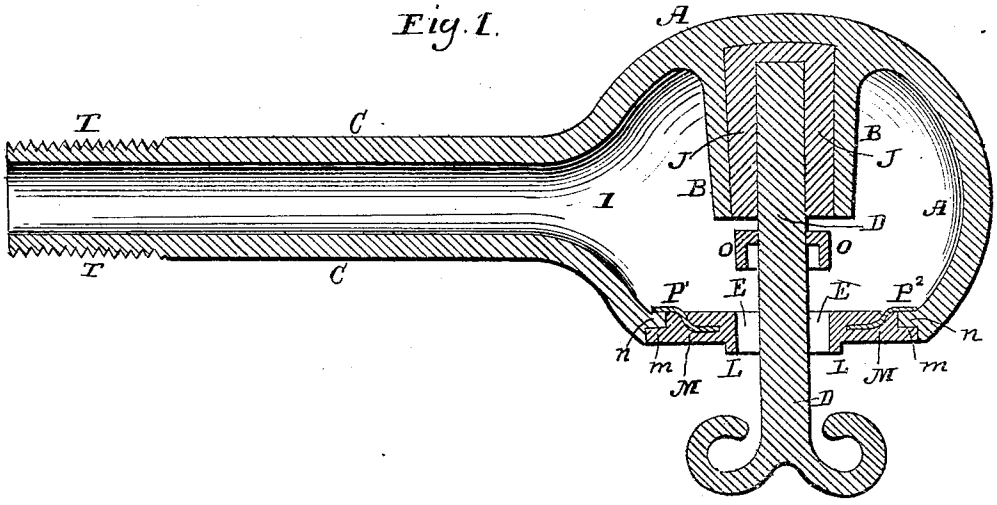


Fig 5.



Fig 4.

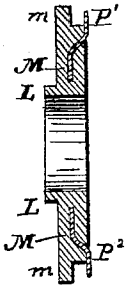


Fig. 3.

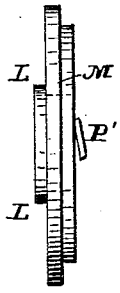


Fig. 2.

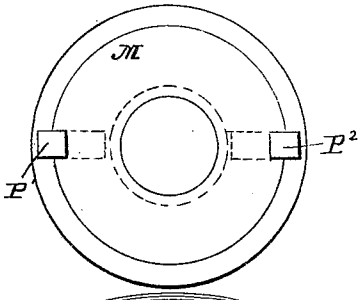
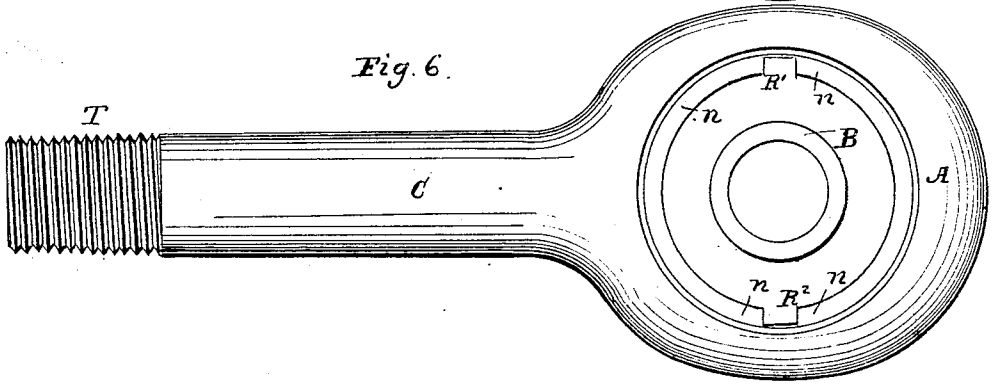


Fig. 6.



N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

W. H. BURNAP AND J. D. BRASSINGTON, OF NEW YORK, N. Y

IMPROVEMENT IN TELEGRAPH-INSULATORS.

Specification forming part of Letters Patent No. **58,594**, dated October 9, 1866.

To all whom it may concern:

Be it known that we, WILLIAM H. BURNAP and JOHN D. BRASSINGTON, of the city and county of New York, and State of New York, have invented certain new and useful Improvements in Telegraph-Insulators; and we do hereby declare that the following is a full and exact description thereof.

Our invention relates to that class of insulators in which the pin is secured in a hollow casing which receives the pin from below, and is adapted to be secured by screwing or otherwise to the pole or support.

We will first describe what we consider the best means for carrying out our invention, and will afterward designate the point which we believe to be new.

The accompanying drawings form a part of this specification.

Figure 1 is a longitudinal vertical section through one of the hollow cases constructed according to our invention. Fig. 2 is a top view of a disk, of rubber or analogous non-conducting material, employed in the base of the case, and which is an essential feature of our invention. Fig. 3 is an edge view of the same disk. Fig. 4 is a section of the same. Fig. 5 is a section showing a slight modification. Fig. 6 is a view of the entire case seen from below, with the said disk and with the pin and its attachments removed.

Similar letters of reference indicate corresponding parts in all the figures.

A is a shell or casing of cast-iron. B is an internal part thereof. C is the stem or neck. D is the pin, firmly secured in the part B by means of sulphur or other suitable insulating material, marked J. O is an inverted cup, of hard rubber or other suitable material, secured on the pin D. I is the hollow interior of the casing A, which hollow is continued along the neck, and allows any moisture, which by any chance shall enter the casing from below to be absorbed by the wood of the pole. (Not represented.) F is a screw-thread, by which the entire casing is conveniently fixed in the pole.

M is a disk, of rubber or other suitable material, provided with a projecting lip, *m*, and adapted to fit on the correspondingly-finished surface *n* at the base of the casing A. The hole E in the center of this disk is larger than the pin D, and care is taken in mounting the parts to support the pin D in a line as nearly as possible in the center of the hole E.

P^1 P^2 are springs, of steel, rolled brass, or other suitable material, bedded in the material of the disk M, projecting radially in the position described. Corresponding rectangular notches R^1 R^2, Fig. 6, are formed in the lip *n*, and the springs P^1 P^2 are set slightly twisted, as indicated in Fig. 3, so that the disk M and its attachments may be firmly secured in place by applying it to the base of the case in such position that the springs P^1 P^2 shall coincide with the notches R^1 R^2, and, after having pressed the disk M up firmly in this position, so that the lip *m* presses against the under surface of the lip *n*, the entire disk M, with its attached springs, is then turned forcibly around on its axis, so as to cause the springs P^1 P^2 to slide upon the inside or upper face of the lip *m* and hold the whole firmly in place.

We prefer to produce a small hanging lip, L, around the edge of the hole E, as represented, but do not consider this absolutely essential to the success of this invention.

We prefer to make the hole E of such size as is equal to the exterior diameter of the cup O; but in case it is less it is easy to insert the pin D through the disk M before the cup O is applied.

We do not confine ourselves to rubber as a material for the disk M. Wood or any other convenient non-conductor may be employed with success.

Our invention allows great facility of access to the interior of the casing to properly secure the pin, &c., with a necessity for but a very small opening around the pin through which moisture can be blown in any kind of weather. We esteem it valuable on this account, but more particularly on account of the fact that its non-conducting properties prevent or greatly reduce the evils heretofore experienced from the formation of webs, known as "spider-webs," "air-webs," &c., connecting the pin with the bottom of the casing. With our invention such webs may exist, connecting the pin D to the edges of the hole E, without impairing the action of the telegraph in any appreciable degree, because of the non-conducting properties of the material of the disk M.

Fig. 5 shows a modification in the mode of applying the springs P^1 P^2, which may be preferred as giving greater length and correspondingly-increased elastic action to these springs. We do not confine ourselves to any specific modification of the form of either of these springs.

Having now fully described our invention, what we claim as new, and desire to secure by Letters Patent, is as follows:

1. A non-conducting ring or disk fitted in the base of a hollow-shell insulator below the point at which the pin is secured, substantially as and for the purpose herein set forth.

2. The non-conducting disk M *m*, fitted with springs P^1 P^2, and adapted to be confined in the base of the shell A, substantially in the manner and for the purpose herein set forth.

3. The within-described combination and arrangement of the shell A H, confining material J, inverted cup O, and removable non-conducting disk M, as and for the purpose herein set forth.

W. H. BURNAP.
JOHN D. BRASSINGTON.

Witnesses:
WM. SHAW,
F. A. BURNAP.