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POLE PROTECTOR.

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Patented Feb. 28, 1911. 985,681.

## UNITED STATES PATENT OFFICE.

VALENTINE KONOPINSKI, OF BROOKLYN, NEW YORK.

## POLE-PROTECTOR.

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Specification of Letters Patent.

Patented Feb. 28, 1911.

Application filed December 7, 1909. Serial No. 531,750.

To all whom it may concern:

Be it known that I, VALENTINE KONO-PINSKI, a citizen of the United States, residing at Brooklyn, in the county of Kings and 5 State of New York, have invented new and useful Improvements in Pole-Protectors, of which the following is a specification.

This invention relates to sleeves for telephone and telegraph poles and its object is 10 to provide means for protecting and strengthening wooden poles or poles which are subject to decay or corrosion, the sleeve to be applied to the pole while it is standing so that removal, bracing or alteration to the 15 pole is unnecessary but it may still perform its function of supporting wires while the application of the sleeve is being made, as will be more fully described in the following specification, set forth in the claims and 20 illustrated in the drawings, where:

Figure 1 represents an ordinary telegraph pole which has been strengthened and supplied with one of the improved sleeves. Fig. 2 is a sectional view through the pole look-25 ing down upon the sleeve. Fig. 3 is a modified form. Fig. 4 is a view of the modified form with the concrete filling complete.

The invention consists in the use of a sleeve to be applied to the base of a pole when in-30 serted in the ground for the purpose of protecting the pole at the point where it is most liable to decay and destruction, the sleeve consisting of two sections 5 and 6 which are clamped about the base or butt of the pole 35 either immediately above the surface of the ground or both above and below the surface and in both cases the sections are provided with flanges 7 for the reception of bolts 8 to clamp the two sections together. In apply-40 ing this sleeve a pole which has been standing and needs strengthening is preferred and the base of the pole above the ground is trimmed down and the two sections traced around same and joined together as shown 45 in the drawings.

In case that it is necessary to apply the sleeve to a pole which has rotted away or been worn off at its base, the pole is first given a coating of some substance such as tar, 50 putty or concrete so that it will fill the sleeve when applied to same in order to secure a solid and snug fitting for the sleeve which is then placed thereon. Before the sleeve is applied, however, the soil is dug 55 away from the lower end of the pole leaving the extreme end, however, still in the ground |

and the space made by the removal of the soil is filled in with concrete and in the latter is inserted bolts 9 with their threaded ends upward. These ends are adapted to 60 pass through holes in flanges 10 at the lower part of each of the sections and nuts 11 are then provided to secure the flanges and sleeve to the concrete packing 12. Before the concrete is packed into the opening, the butt 13 65 of the pole may be coated with pitch or other nonconductive and preservative substance similar to the lower section of the pole which is surrounded by the sleeve. In thus providing the pole with the concrete packing 70 and the sleeve no special care or attention is necessary for maintaining its upright position as its lower end remains in the ground and there is little or no danger of its being thrown out of the perpendicular. The con- 75 crete packing 12 at the same time furnishes a water proof foundation and solid support for the pole and provides for its safety and preservation.

In the modified form shown in Figs. 3 and 80 4, a sleeve 14 is made in sections and provided to protect the pole both above and below the ground line. The pole in this instance is also relieved of the earth for a short distance below the surface of the 85 ground and cut away or filled in to provide a perfect cylinder for the reception of the sleeve, the butt 15 remaining in its original state and partly embedded in the soil. After the sleeve has been placed about the pole a 90 filling of concrete 16 is placed in the hole and strengthened with rods 17 and circling wires 18 in order to hold it together and maintain its solidity.

The sleeves are more firmly connected with 95 the poles by means of bolts 19 and 20 the former passing through the pole from side to side and being provided with nuts 21.

In providing the pole with a packing of concrete around its lower end and below 100 the surface of the ground, the pole is not only protected from moisture at that point but its position in the ground is rendered more firm and the concrete tends to weight the pole so as to keep it in a perpendicular 105 position.

It is obvious that the above described details of the invention may be modified without departing from the essential features referred to.

The concrete packing when used around the lower end of the sleeve, not only protects

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the pole but prevents corrosion in the sleeve and its upper end may be so formed around the pole and sleeve as to shed the water and prevent the sleeve from corroding.

I claim:—

1. In a pole protector, the combination with the butt of the pole, of a sleeve open at both ends and clamped around a reduced or cylindrical portion of the pole above the 10 butt, and a concrete filling around the lower part of the pole and secured to the sleeve.

2. In a pole protector, the combination with the butt of a pole, of a protecting sleeve open at both ends and made in two sections 15 to be clamped on a cylindrically prepared portion of the butt, and a concrete filling packed around the butt and the lower end of the pole and connected with the sleeve.

3. In a pole protector, the combination 20 of a sleeve made in two sections and open at

each end, of a pole having its butt prepared to receive the sleeve, a concrete filling about the butt and connected with the sleeve, and bolts to hold the sections of the sleeve together.

4. In a pole protector, the combination with the butt of a pole having that part near the surface of the ground given a cylindrical shape, of a sleeve divided longitudinally into two sections and open at each end to fit 30 about the cylindrical portion, flanges on the two sections, bolts for the flanges, a concrete filling about the lower part of the pole and means for securing the sleeve to the filling.

In testimony whereof I affix my signature 35

in presence of two witnesses.

VALENTINE KONOPINSKI.

Witnesses:

JAMES F. DUHAMEL, GEO. A. SENIOR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."