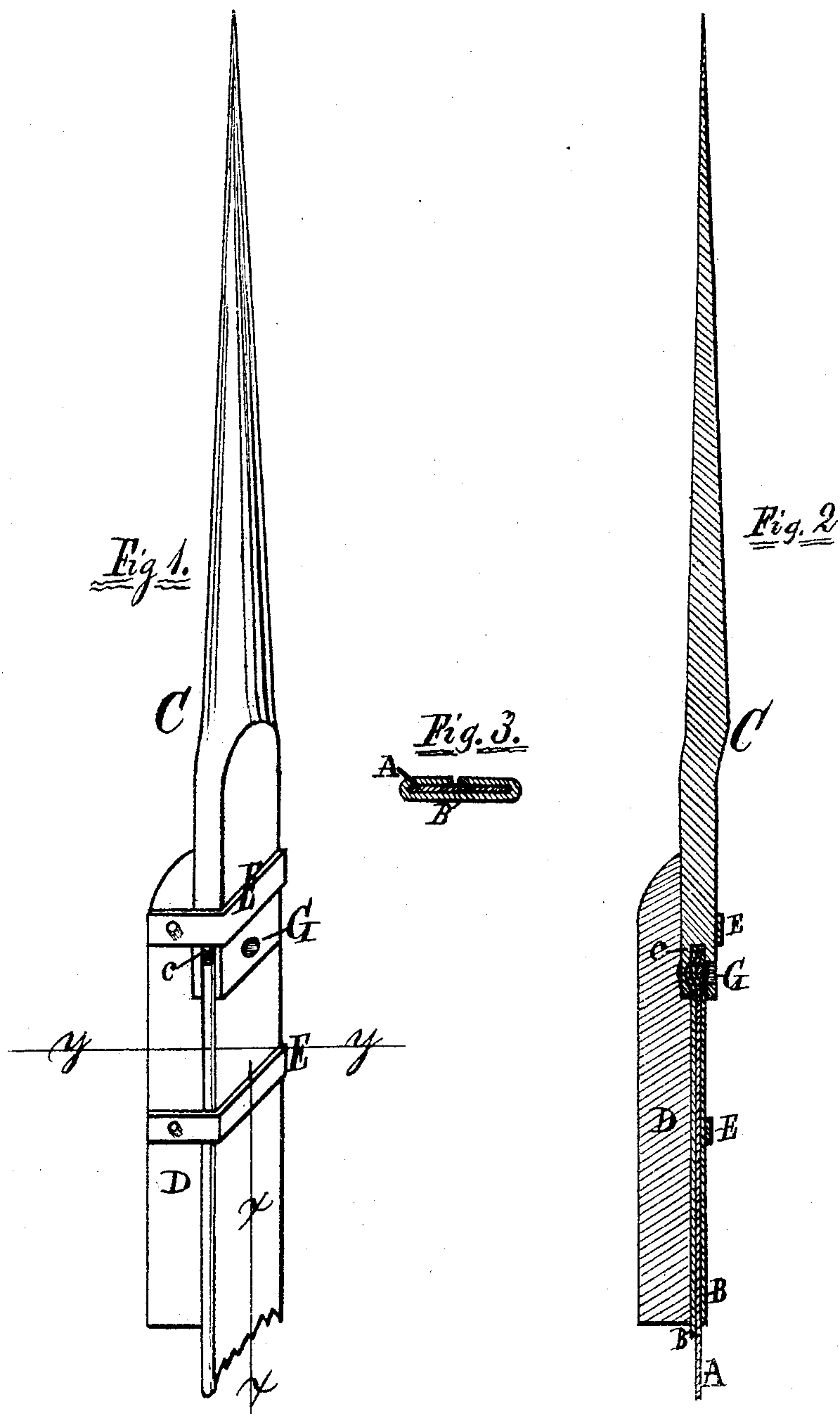


Charles P. Snow. — Lightning-Rod.

No. 122,290.

Patented Dec. 26, 1871.



Witnesses:—

Platt Richards.

D. G. Clarke.

Inventor,

Charles P. Snow.

(by) W. B. Richards,
his Att'y

UNITED STATES PATENT OFFICE.

CHARLES P. SNOW, OF FREEPORT, ILLINOIS.

IMPROVEMENT IN LIGHTNING-RODS.

Specification forming part of Letters Patent No. 122,290, dated December 26, 1871; antedated December 23, 1871.

SPECIFICATION.

I, CHARLES P. SNOW, of Freeport, in the county of Stephenson and State of Illinois, have invented certain Improvements in Lightning-Rods, of which the following is a specification:

Nature and Objects of the Invention.

The nature of my invention relates to improvements in lightning-rods or conductors; and the invention consists, first, in constructing the rod of a continuous flat zinc strip surrounded entirely by a continuous copper strip, the object being to produce a continuous strip-rod, combining greater strength with greater conducting powers for electricity than any heretofore known. Secondly, it consists in a simple attachment of the point to the rod, dispensing with the use of collars, clasps, rivets, screws, bolts, &c., all as hereinafter fully described:

Description of the Accompanying Drawing.

Figure 1 is a perspective view of my invention. Fig. 2 is a longitudinal sectional view on the line *x x*, Fig. 1. Fig. 3 is a cross-section on the line *y y*, Fig. 1.

General Description.

A represents a flat strip of zinc extending from its seat in the lower end of the point to the lower end of the rod, and can be made of any size required, adapting it to various heights to which the rod is applied. B is a flat copper strip entirely surrounding the strip A, as shown by Fig. 3, and forming, with the strip A, the rod. C is the point, made flat at its lower end, and to correspond in width with the width of the rod B. The point C has a slot, *c*, at its lower end, for the reception of the upper end of the rod B. D is the staff supporting the upper end of the rod, and also the point, in the usual manner, by the

attachments E E. G is a hole punched entirely through one of the flanges formed on the lower end of the point C, by the slot *c*, and partly through the other flange.

The manner of forming this joint between the point C and the rod B is very simple. The end of the rod B being inserted in the slot *c* a punch is then inserted in the hole G, and, being struck with a hammer, will recess or sink a part of the rod B into the recess in the other side of the point C, and hold it sufficiently secure for all purposes.

The advantages of a lightning-rod constructed in the manner and of the form described are that thereby a greater conducting surface of copper (the best conducting metal) is presented for the passage of the electric fluid, while the zinc, or other metal enveloped within the copper, without impairing its power as a conductor, imparts a degree of strength and rigidity to the rod unattainable by the use of copper alone, which, from its soft and ductile nature, is in itself deficient in strength and rigidity; and, at the same time, when made in the flat form and in the manner described, these lightning-rods possess the further advantages of cheapness of construction, ease and facility of transportation, fitting up, &c.

What I claim as my invention is—

1. A lightning-rod constructed of a flat strip of zinc or other strengthening metal surrounded by a strip of copper, substantially as and for the purpose specified.

2. In combination with a flat lightning-rod, A B, the point C, when united by compressing the rod B into the recess *c*, in the manner substantially as set forth.

CHARLES P. SNOW.

Witnesses:

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