(No Model.)

F. P. ROSBACK.

SHEET METAL FENCE POST.

No. 457,133. Patented Aug. 4, 1891.

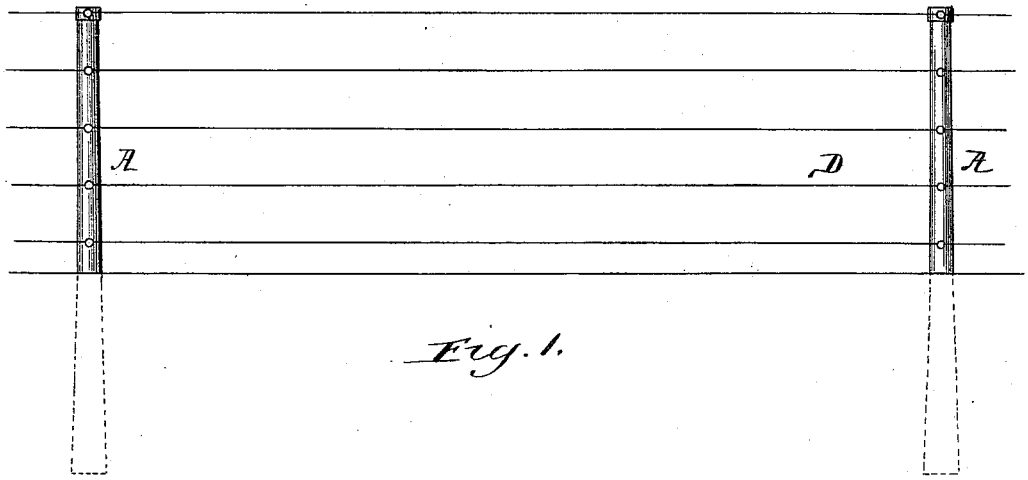

Fig. 1.

Fig. 2.

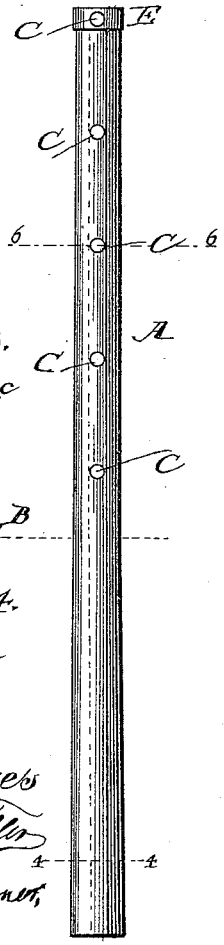

Fig. 3.

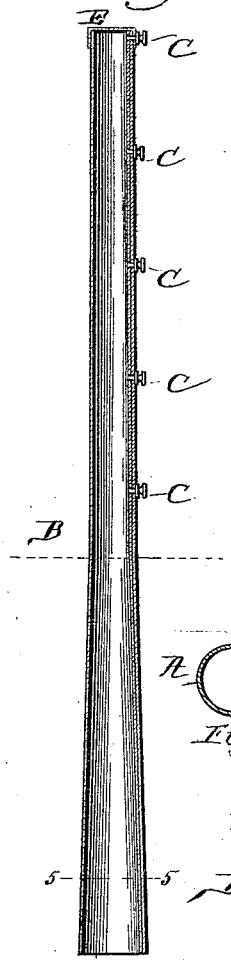

Fig. 8.

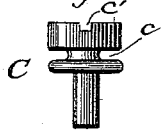

Fig. 4.

Fig. 6.

Fig. 7.

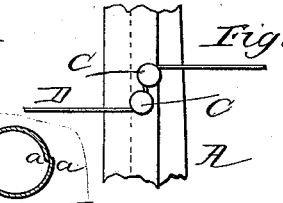

Fig. 5.

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UNITED STATES PATENT OFFICE.

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SHEET-METAL FENCE-POST.

SPECIFICATION forming part of Letters Patent No. 457,133, dated August 4, 1891.

Application filed January 17, 1891. Serial No. 378,114. (No model.)

To all whom it may concern:

Be it known that I, FREDRICK P. ROSBACK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Sheet-Metal Fence-Posts, of which the following is a specification.

My invention relates to a construction of sheet-metal post particularly adapted for service as a fence-post, but also of use as a post or pole for telegraph-wires and other analogous purposes and involving as a matter of general construction a sheet of steel or other suitable metal rolled into tubular form and adapted to be driven into the ground.

My invention is also particularly applicable to a sheet-metal fence-post involving, in addition to the aforesaid general feature of construction, a gradual enlargement in diameter toward its lower end and a capability of further expansion along its lower end portion when driven into the ground, so that when the post is set it shall have an enlarged base portion, and thereby stand firmly in the earth.

The objects and advantages of my invention are the provision of an exceedingly strong and durable construction in a simple and economical way; provision for the expansion of the lower end portion of the post as it is being driven into the ground and at the same time the practical preservation of the integrity of the tubular form or construction of said portion of the post; the provision of simple, reliable, and efficient means for securing together the meeting edges of the tubular metal sheet along the upper end portion of the structure, so that while the lower end portion of the post may expand while being driven into the ground the upper end portion of the post which stands above the ground-line shall retain its original size and shape; to utilize means employed for securing together the upper edges of the tubular metal sheet as holders for fence and other wires; the provision of a simple and serviceable top or cap for the post; the permissibility of the ready and economical manufacture of the article by machinery, and the provision of certain novel and serviceable details of construction serving to increase the general efficiency and utility of sheet-metal fence-posts.

To the attainment of the foregoing and other useful ends my invention consists in matters hereinafter set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 represents a couple of fence-posts embodying my invention and set into the ground, with a series of fence-wires attached to the posts so as to form a fence. Fig. 2 represents in elevation, on a somewhat larger scale, a fence-post embodying my invention and illustrates the same before it has been driven into the ground. Fig. 3 is a central longitudinal section through said post, but illustrates the condition of the same after it has been driven into the ground. Fig. 4 is a cross-section through Fig. 2 on line 4 4. Fig. 5 is a cross-section through Fig. 3 on line 5 5. Fig. 6 is a cross-section through Fig. 2 on line 6 6, the post illustrated by Fig. 6 being made slightly larger than in Fig. 2 for convenience of illustration. Fig. 7 illustrates a portion of the post having the rivets arranged in pairs. Fig. 8 comprises an end view and central section of one of the rivets having a notch in its end.

The post A is formed from an oblong sheet-metal blank, which is rolled into tubular form, with one longitudinal edge portion overlapping the other longitudinal edge portion, substantially as in Figs. 4 and 6. The sheet-metal blank is preferably rolled so as to increase the diameter of the hollow or tubular post toward its lower end, and for this purpose the blank can be widened toward one end, although of course it could be made of equal width at its ends and rolled so as to enlarge the post toward one end, as aforesaid. This enlargement of the post can be gradual from end to end thereof; but as a preferred arrangement the post is enlarged from the ground-line B toward its lower end, as in Fig. 2. The overlapping edge portions *a* of the metal sheet which is thus rolled to form a post are secured together above the ground-line, so that while the portion of the post which is destined to stand above the ground shall involve the construction of a tube formed of a metal sheet which is secured or united along its meeting edge so as to form a rigidly-closed seam the portion of the post which is to be driven into the ground shall involve

the construction of a longitudinally-split tube, which is free to expand by reason of its split or non-united seam. When, therefore, the post thus constructed is driven into the ground, its lower enlarged or expanded end portion (which, as aforesaid, is gradually enlarged or expanded downwardly from the ground-line, as in Fig. 2) will expand to a greater extent, as in Fig. 5, and thereby give the post an enlarged base and a firm hold in the ground. During the act of thus driving down the post the overlapping edges of the metal sheet of which it is formed will slide upon and draw away from one another below the lowest point of securement of said edge portions and to an extent proportional to the expansion of the post below said point. It is desirable, therefore, that the edge portions of metal sheet below the ground-line or below the lowest point of their securement should overlap one another to an extent to provide for the drawing away of one edge portion from the other, and thereby preserve the construction of a complete or practically complete tube, notwithstanding its said expansion. In order to thus provide against an undesirable longitudinal gap below the ground-line, the blank can be cut so as to permit the edges to overlap to a greater extent below the ground-line or point of securement of said edges, or the blank can be of such width from end to end as shall permit its entire longitudinal edge portions to overlap to a considerable extent.

For the broader purposes of my invention the post may be so formed that the greatest expansion to which its lower end portion is subject shall bring one longitudinal edge of the metal sheet opposite the other longitudinal edge thereof or leave the longitudinal edge portions of the metal sheet still somewhat overlapped, the essential feature being that by overlapping the edge portions in the first place one may draw away from the other during the act of driving down the post and yet avoid an undesirable extent of separation on the part of the edges of the metal sheet.

For the broader purposes of my invention the downwardly-enlarged sheet-metal post, having the longitudinal edge portion of at least its lower end portion arranged to overlap, can be secured along the upper portion of its seam in any suitable way; but as a matter of further improvement I roll the blank so that its longitudinal edge portions shall overlap along or substantially along the entire length of post and secure said overlapping edge portions together above the ground-line by rivets C.

The rivet-holes can be punched either before or after rolling the blank, and the rivets can be applied in any suitable way, although as a preferred mode I can apply and upset their inner ends by a suitable machine. As a further matter of improvement, I form the rivet-heads so as to permit them to form holders for the fence-wires D, which may, for example, be arranged as in Fig. 1.

The rivet-heads may be formed in various ways. Thus each rivet may have an annular groove *c*, so that in order to attach a wire the same can be secured by engaging it in said groove and giving it one or more turns about the rivet. The rivet may also have in its head a notch *c'* for the reception of a wire, and this arrangement I regard as of particular service in attaching barbed wire, which, being, as a rule, formed by two or more strands twisted together, is too stiff to be bent around the rivet-head in its annular groove, and hence, in order to attach it to the rivet-head, it can be laid in notch *c'* and further secured in place by a short wire, which can be carried about the rivet-head in the annular groove *c* thereof and tied to the barbed wire. I may also arrange the rivets in various ways—as, for example, I can place them in pairs, so as to permit the wire to be carried about them, as in Fig. 7.

To the top end of the post I fit a metal cap E, which can also be secured by a rivet C. The cap serves to close the hollow post, and while serving to receive the blows of the hammer or other implement used in driving down the post prevents splitting or undesirable defacement of the latter.

What I claim as my invention is—

1. A tubular sheet-metal fence-post enlarged toward its lower end and formed of a metal sheet having its meeting edge portions arranged to overlap one another, the overlapping edge portions of the metal sheet being along the lower portion of the post free to slide upon one another, so that when the post is forced into the ground it can expand in diameter below the ground-line without opening along the seam, substantially as set forth.

2. A tubular sheet-metal fence-post enlarged toward its lower end and formed of a metal sheet having its meeting edge portions secured together along the upper end portion only of the post and arranged to overlap along the lower end portion of the post, the overlapping edge portions along the lower end portion of the post being free to slide upon one another, so that said portion of the post may, when forced into the ground, expand without opening along the seam, substantially as set forth.

3. A tubular sheet-metal fence-post enlarged toward its lower end and formed of a metal sheet having its meeting edge portions arranged to overlap along substantially the entire length of post, but secured together along the upper end portion only of the same, the overlapping edge portions of the metal sheet along the lower portion of the post being free to slide upon one another, so that said portion of the post may, when forced into the ground, expand without opening along the seam, substantially as set forth.

4. A tubular sheet-metal fence-post gradually enlarged downwardly substantially from the ground-line and formed from a metal sheet having its meeting edges arranged to

overlap and secured together above the said point of enlargement, the overlapping edge portions of the metal sheet along the lower edge portion of the post being free to slide upon one another, so as to allow said portion of the post to expand when driven into the ground without opening along the seam, substantially as set forth.

5. A tubular sheet-metal fence-post enlarged toward its lower end and formed of a metal sheet having its meeting edges arranged to overlap and riveted together along the upper end portion of the post, the overlapping edge portions of the metal sheet below the line of rivets being free to slide upon one another, so as to permit the lower portion of the post to expand when forced into the ground without opening along the seam, substantially as set forth.

6. A tubular sheet-metal fence-post formed of a metal sheet having overlapping edge portions secured together by rivets formed with heads which project from the post and provide holders for the wires.

7. A tubular sheet-metal fence-post formed of a metal sheet having overlapping edge portions secured together by rivets having annular grooves for the fence-wires.

8. A tubular sheet-metal fence-post formed of a metal sheet having overlapping edge portions secured together by rivets having notches in their heads.

9. A tubular sheet-metal fence-post formed of a metal sheet having overlapping edge portions secured together by rivets having annular grooves and end notches.

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