

(No Model.)

B. F. CALDWELL.

DEVICE FOR PACKING AND PROTECTING SHEET METAL.

No. 350,344.

Patented Oct. 5, 1886.

Fig. 1.

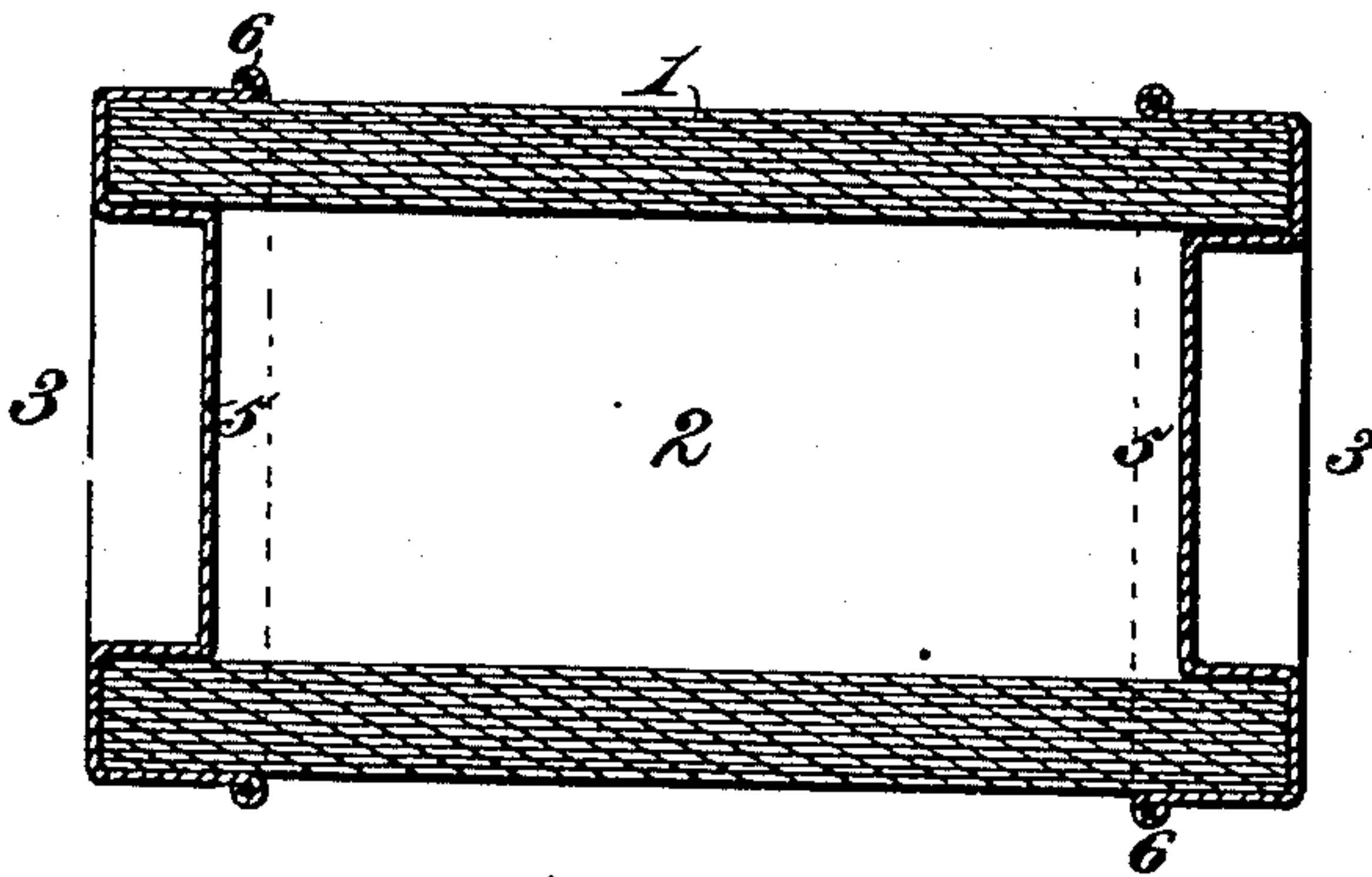


Fig. 2.

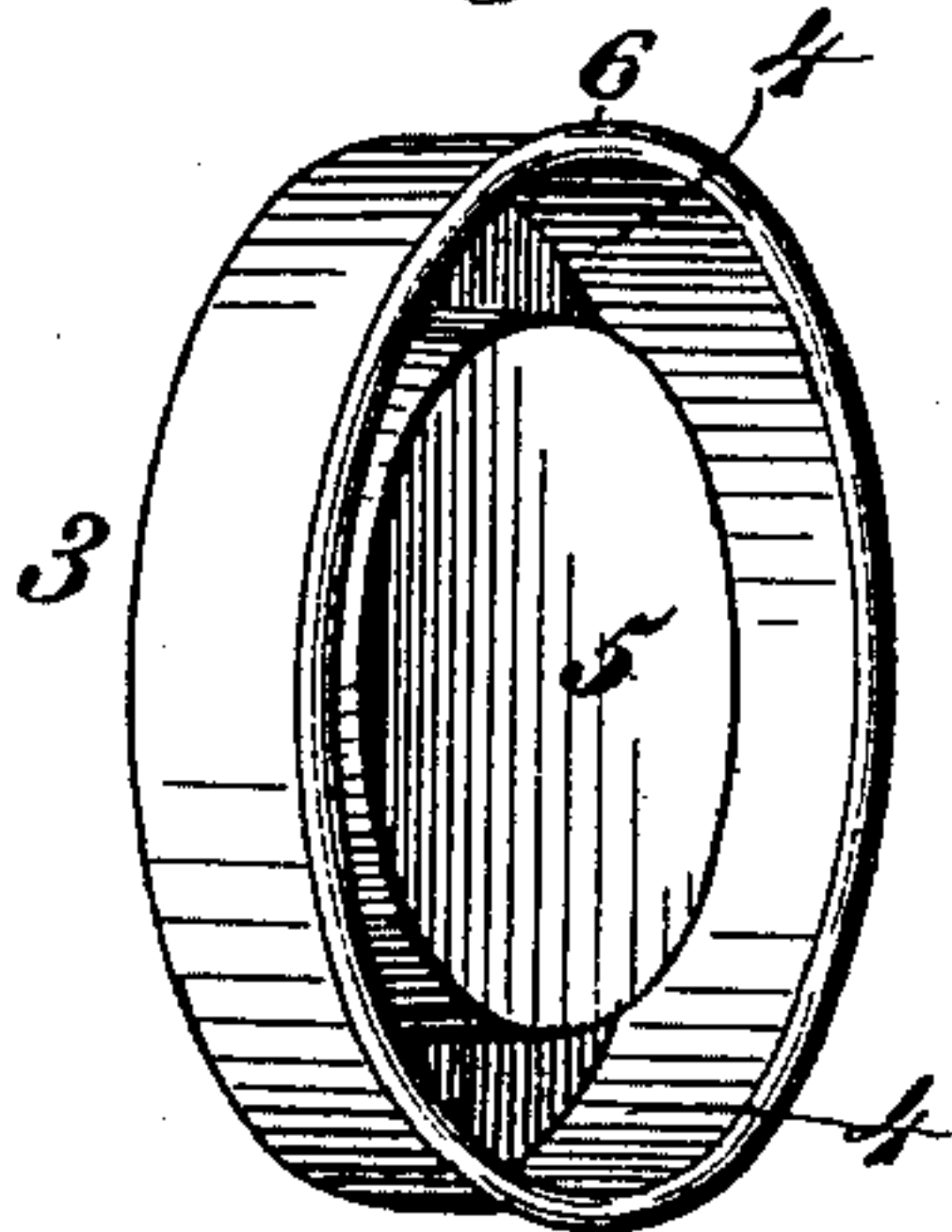
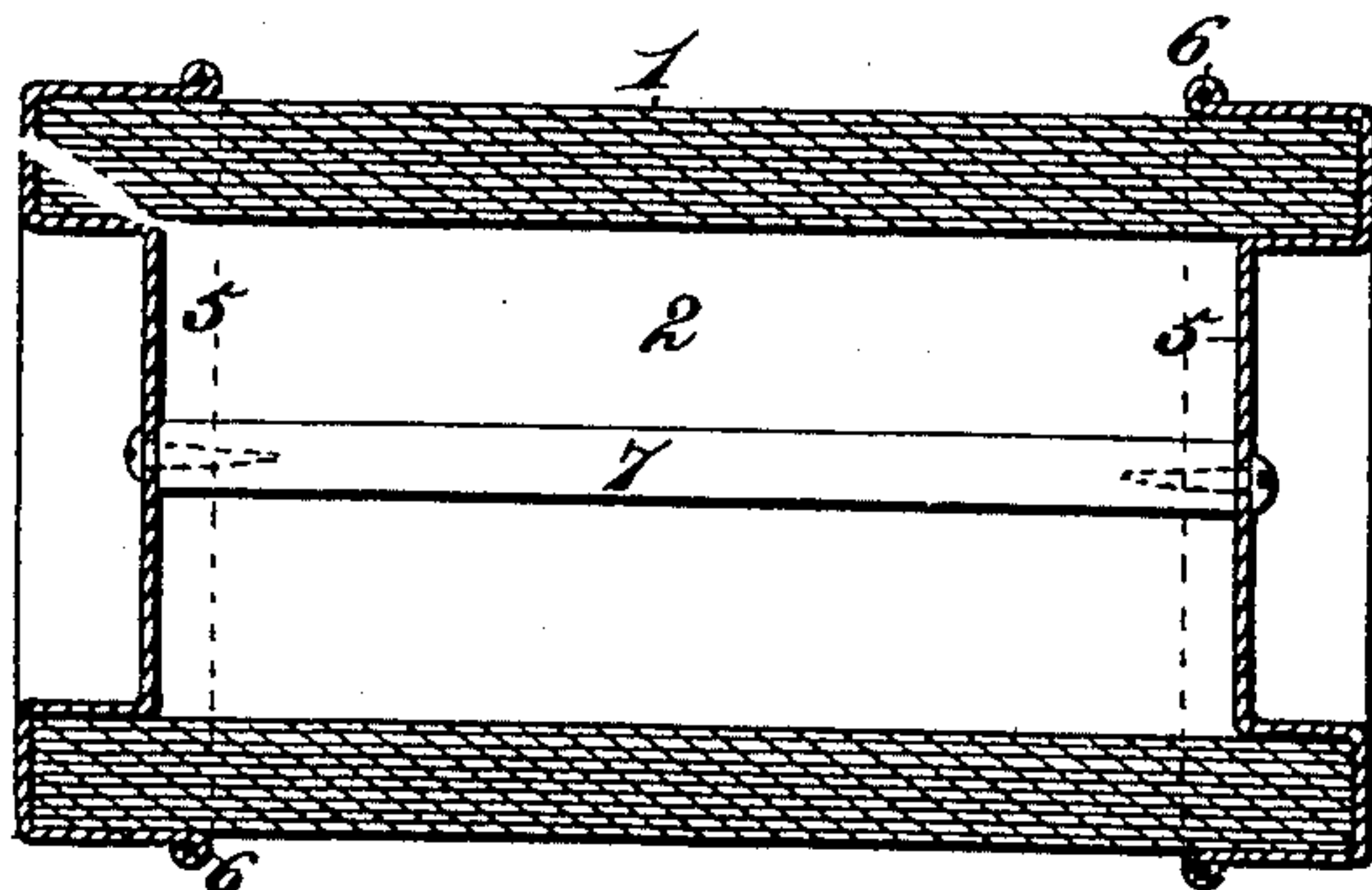


Fig. 3.



Witnesses,

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UNITED STATES PATENT OFFICE.

BENJAMIN F. CALDWELL, OF WHEELING, WEST VIRGINIA.

DEVICE FOR PACKING AND PROTECTING SHEET METAL.

SPECIFICATION forming part of Letters Patent No. 350,344, dated October 5, 1886.

Application filed March 16, 1886. Serial No. 195,483. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. CALDWELL, a citizen of the United States, residing at Wheeling, in the county of Ohio and State of West Virginia, have invented new and useful Improvements in Devices for Packing and Protecting Sheet Metal, of which the following is a specification.

My invention relates to improvements in devices for packing and protecting sheet-iron or other sheet metal for transportation, and the purpose thereof is to provide means whereby the metal sheet or sheets may be rolled and retained in cylindrical form and still receive complete protection to the edges of the coiled sheets, which project at each end of the package.

The invention consists in the several novel features of construction and combinations of parts hereinafter fully set forth, and definitely pointed out in the claims annexed to this specification.

Referring to the drawings forming part of this application, Figure 1 is a longitudinal central section of a rolled package of roofing-sheets to which my invention is applied. Fig. 2 is a perspective view of one of the caps shown in Fig. 1 removed. Fig. 3 is a longitudinal section of a package similar to that in Fig. 1, showing a modification.

In the said drawings the reference-numeral 1 designates one or more metallic sheets, which are of any known form of construction. In packing these sheets for transportation I roll them each in a coil or one upon another in the form of a cylinder, as shown in Figs. 1 and 3, the central space, 2, being left to prevent the sheet being bent upon so short a radius as to cause it to buckle or break. Upon the ends of the coil I fit caps 3, which are constructed of sheet metal or other suitable material, and which may be conveniently struck up in a die. Each of these caps contains an annular channel, 4, which receives the end of the rolled strip, and the central portion, 5, of the cap being brought inside the end of the roll a very strong support is formed for the edges of the strip against all force acting inward in radial lines. The edges 6 of the cap may, if desired, be wired to impart additional strength and stiffness, or they may simply be rolled without wiring. In either case the said edges will afford a sup-

port upon which the package may roll without bringing its outer face or periphery in contact with the ground, and thereby preserving it in a measure from wet and dirt. When the sheet or sheets are rolled, the caps may be slipped on and the rolls released, whereupon the ordinary elasticity of the metal will cause it to spring closely against the outer walls of the annular chamber 4, thereby confining the caps in place; or if the metal is coiled upon a radius less than that of the cap it may be sprung open to receive the caps, whereupon the edges will be drawn against the inner walls of the annular channels 4 of the caps. I may, if desired, attach a central staff or connection, 7, to the caps, as shown in Fig. 3, and screws may be used to secure the caps thereto, or any other suitable devices. The caps shown form a protection which cannot easily be bent, broken, or displaced, and they not only retain the roll in its cylindrical shape, but fully protect the edges of the sheet metal.

What I claim is—

1. As an article of manufacture, a sheet of metal rolled into a hollow expansible cylinder and having at each end a sheet-metal cap, 3, provided with the annular channel 4, in which the end of the cylinder is secured, substantially as described.

2. As an article of manufacture, a sheet or sheets of metal rolled into a hollow expansible cylinder and having at each end a cap, 3, provided with a depressed central portion, 5, fitting within the hollow part of the cylinder, and with an annular channel, 4, receiving the ends of the cylinder, substantially as described.

3. A cap for protecting the end of a hollow roll of sheet metal having the annular channel 4 to receive the end of the roll and the centrally-depressed portion 5 to enter and bear against the interior of the roll, said depressed portion having its wall parallel to the outer wall of the annular channel, whereby the two walls bear squarely upon the inner and outer surfaces of the sheet-metal roll, substantially as described.

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

BENJAMIN F. CALDWELL.

Witnesses:

HARDY HENRY,
W. F. PETERSON.