No. 692,405. Patented Feb. 4, 1902.

W. J. WRIGHT.

WOVEN WIRE BAG.

(Application filed Apr. 1, 1901.)

(No Model.)

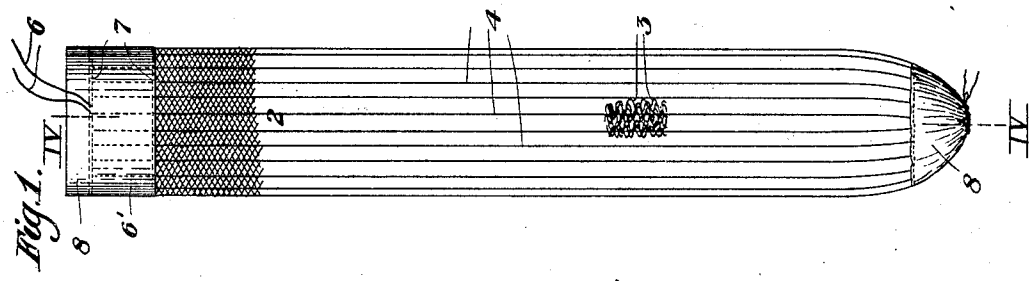


Fig. 1.

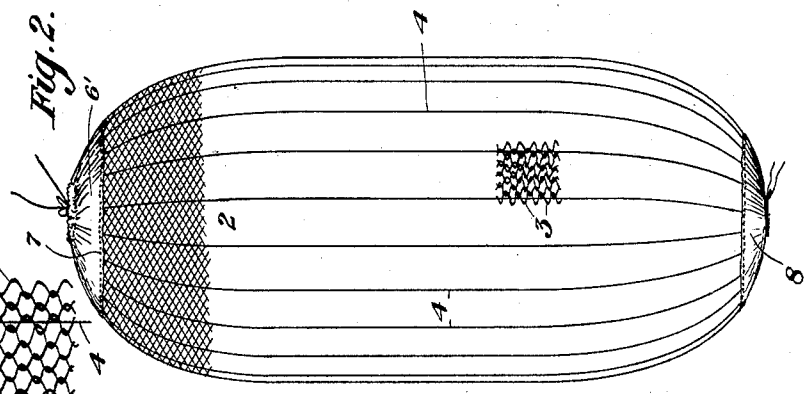


Fig. 2.

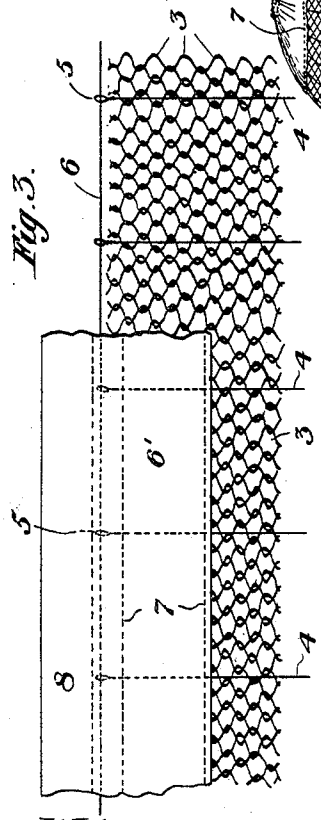


Fig. 3.

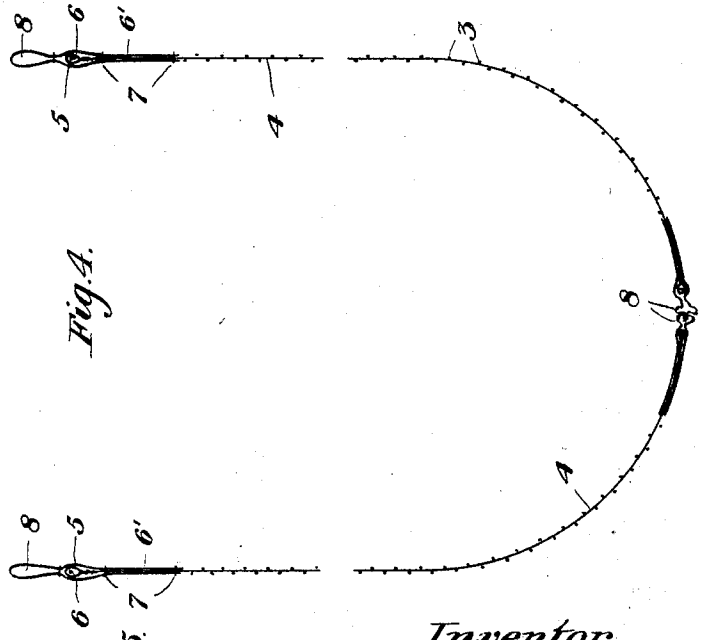


Fig. 4.



Fig. 5.

Witnesses:

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM J. WRIGHT, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO JOHN S. SCULLY, OF PITTSBURG, PENNSYLVANIA.

WOVEN-WIRE BAG.

SPECIFICATION forming part of Letters Patent No. 692,405, dated February 4, 1902.

Application filed April 1, 1901. Serial No. 53,801. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. WRIGHT, a citizen of the United States of America, and a resident of Pittsburg, county of Allegheny, State of Pennsylvania, have invented certain new and useful Improvements in Woven-Wire Bags, of which the following is a specification, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a view in side elevation of my improved woven-wire bag, a portion only of the top being shown as composed of the preferred form of woven-wire fabric, the retaining portion of the bag being shown as of a conventional pattern. Fig. 2 is a similar view showing the bag filled and closed at the top. Fig. 3 is a detail view of a portion of the upper part of the bag flat, illustrating the construction and the combination of the woven-wire fabric, the strengthening-wire, the reinforcing top, and the tying-wire. Fig. 4 is a vertical sectional view, partly broken away, illustrating the sides of the bag distended and open at the top. Fig. 5 is a detail cross-sectional view illustrating the interwoven spiral wire coils somewhat flattened by distention, as when the bag is filled, and showing the interwoven strengthening-wires.

My invention consists of an improved bag for packing and transporting coal, grain, or other material or minerals; and it consists generally of a cylindrical or other form of bag composed of interwoven wire provided with supplemental strengthening-wires at intervals, reinforcing material at each end of the bag, and means for tightly closing the ends.

Referring to the drawings, the main body portion of the bag consists of a surrounding preferably cylindrical shell 2, which in practice consists of woven or spun wire fabric, preferably made in the form illustrated in Fig. 3 of the drawings, wherein continuous spiral coils of wire 3, extending from one end of the bag to the other, are interwoven with their next adjacent coil on each side in such a manner as to provide a continuous woven-wire fabric of great strength and elasticity, whereby the bag when filled may be considerably distended or is capable of being collapsed into very small compass. Throughout the length of the bag from end to end are arranged at intervals longitudinal strengthening-wires 4, looped through the coils 3, such strengthening-wires terminating at each end in eyes 5, through which eyes is passed a tying-wire 6, by which the ends of the bag may be closely gathered together, so as to prevent escape of the contents. Surrounding each edge of the bag at the bottom and top is a reinforcing-strip 6′ of any suitable material, as canvas, incorporated with the woven-wire fabric in any suitable manner, as by stitching 7, the reinforcing fabric being preferably placed on each inner and outer side, as shown, and for the purpose of providing a surplus of such material it is looped beyond the edge of the fabric and strengthening-wire, as at 8, so that when the ends are drawn together by such strengthening-wires the extended portion of such material will be gathered in at the center and will close up any opening when the strengthening-wire is drawn together, so as to prevent escape of the contents. A further advantage of the reinforcing fabric is that it covers and protects the ends of the woven wire and the strengthening-wires, gives a finished appearance to the bag, and also protects the ends from wear or abrasion or accidental cutting of the tying-wires, while also protecting the hands of the operator. As thus constructed the bag is very light and serviceable. Its strength depends for the most part upon the strengthening-wires 4, so that a very light woven-wire netting may be employed, if desired, and a particular advantage of the bag as thus constructed is that it is very easily collapsed when empty and is capable of considerable distention when filled. The looseness of the coils permits of great elasticity and movement, while by reason of the spaces for ventilation the contents, as in case of grain, are thoroughly ventilated and dried.

While the construction of the netting as I have shown is well adapted to the purpose in view, it is obvious that other suitable weaves or spins of wire may be employed with good results, and I do not desire to be limited to the exact form shown and described, but include such other forms as may be substituted therefor.

Various changes and modifications may be made in the design, proportions, or other details of the bag without departing from my invention, and all such are to be considered as being included within the scope of the following claims.

What I claim is—

1. A bag for transporting coal, &c., comprising a cylinder of woven-wire netting provided with interlooped longitudinal strengthening-wires, a reinforcing flexible extension at the bottom and top and means for closing the bottom and top.

2. A bag for transporting coal, &c., comprising a cylinder formed of interwoven or interspun coils of wire provided with interlooped longitudinal strengthening-wires, and means for closing the bottom and top.

3. A bag for transporting coal, &c., comprising a cylinder formed of interwoven or interspun spiral coils of wire, provided with interlooped longitudinal strengthening-wires, and means for closing the bottom and top.

4. A bag for transporting coal, &c., formed of interwoven or interspun spiral coils of wire, provided with interlooped longitudinal strengthening-wires, means for reinforcing the bag, and means for closing the top.

5. A bag for transporting coal, &c., formed of interwoven spiral coils of wire provided with interlooped longitudinal strengthening-wires, means for reinforcing the bottom and for closing it, a reinforcing flexible extension at the top extending beyond the upper edge, and means for closing the top together.

6. A bag for transporting coal, &c., formed of interwoven spiral coils of wire provided with longitudinal strengthening-wires, means for reinforcing the bottom and for closing it, a reinforcing flexible extension at the top extending beyond the upper edge, and a tying-wire extending through looped eyes in the upper ends of strengthening-wires and through such flexible extension.

Signed at Pittsburg this 26th day of March, 1901.

WILLIAM J. WRIGHT.

Witnesses:
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JOHN S. SCULLY.