No. 806,230. PATENTED DEC. 5, 1905.

O. F. ZAHN.

WINDOW SASH WEIGHT.

APPLICATION FILED DEC. 7, 1904.

Fig. 1.

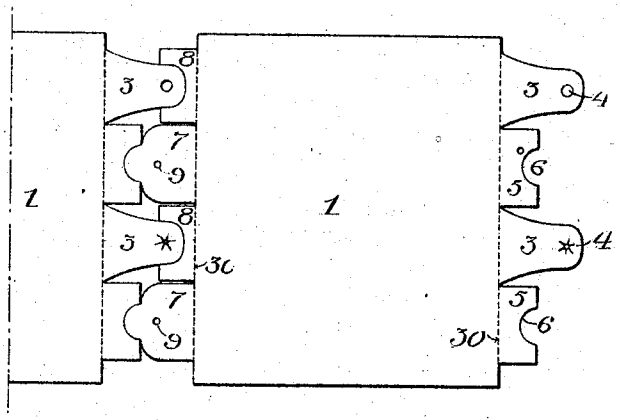


Fig. 4.

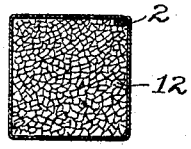


Fig. 8.

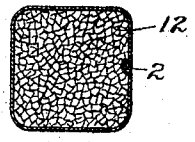


Fig. 2.

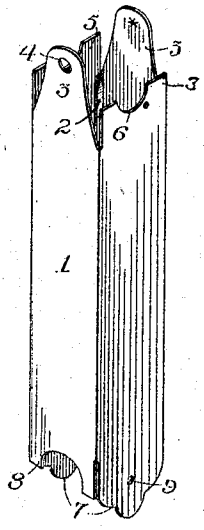


Fig. 3.

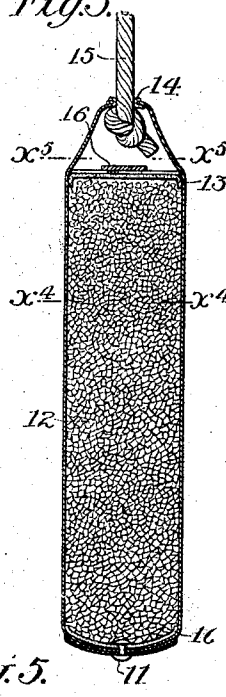


Fig. 7.

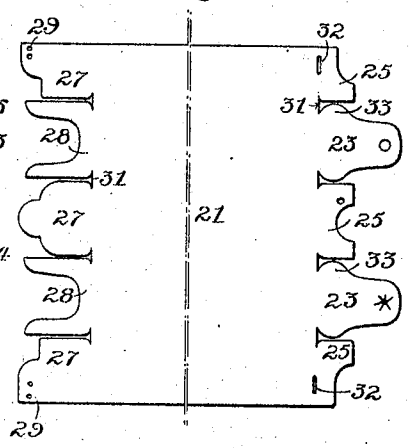


Fig. 6.

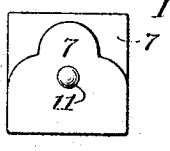
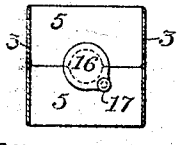


Fig. 5.



Witnesses:-
Frank L. A. Graham.
A. P. Knight.

Inventor;
Oswald F. Zahn.
by Townsend Bros.
Attys.

UNITED STATES PATENT OFFICE.

OSWALD F. ZAHN, OF LOS ANGELES, CALIFORNIA.

WINDOW-SASH WEIGHT.

No. 806,230. Specification of Letters Patent. Patented Dec. 5, 1905.

Application filed December 7, 1904. Serial No. 235,785.

To all whom it may concern:

Be it known that I, OSWALD F. ZAHN, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles, State of California, have invented certain new and useful Improvements in Window-Sash Weights, of which the following is a specification.

The main object of this invention is to provide a window-sash weight at a minimum cost, of convenient shape, and of great durability.

Another object of this invention is to provide for the convenient adjustment of the weight.

This invention relates to window-sash weights comprising an outer metallic shell or casing and a filling therein; and an object of the invention is to enable said shell or casing to be substantially of one piece of metal, thereby reducing the expense for material and labor in making the same to a minimum and making the device more substantial.

The accompanying drawings illustrate the invention.

Figure 1 is a plan of the blank used in forming the shell, showing the adjacent portion of the blank formed consecutively therewith. Fig. 2 is a perspective showing the blank bent up longitudinally, but with the ends unbent. Fig. 3 is a longitudinal section of the complete weight. Fig. 4 is a transverse section on line X^4 X^4 in Fig. 3. Fig. 5 is a sectional view on the line X^5 X^5 in Fig. 3. Fig. 6 is an inverted plan. Fig. 7 is a plan of a different form of blank adapted for producing a round-corner tubular weight. Fig. 8 is a horizontal sectional view through the sash-weight formed from the blank shown in Fig. 7.

1 designates a blank or sheet of metal cut or stamped out in such manner as to form the sides and ends of the tubular box-shaped casing or shell when bent up, as hereinafter described. Said blank is bent longitudinally in square or rectangular shape and by means of a suitable machine or by hand, the longitudinal edges of the blank being overlapped and bent on one another to form the longitudinal seam or joint 2. This seam or joint may be formed either at the corner or in one side of the square or rectangular shell. The form of blank shown in Fig. 1 is adapted to produce a shell in which the seam or joint is formed at one corner, as shown in Fig. 4. At the end corresponding to the upper end of the box-shaped tubular casing the blank 1 is formed with two long ears 3, preferably tapering outwardly and having perforations 4 near their outer ends, and alternating with said ears 3 said blank is provided with short ears 5, which may have notches 6 for the purpose hereinafter set forth. At the outer end the blank has two longer ears 7 and two shorter ears 8, alternating with one another, the longer ears being preferably formed with openings 9. When the blank is bent longitudinally, as above described, it will assume the form shown in Fig. 2, and by then bending over the ears the ends of the tubular box will be formed in the following manner: At the bottom of the blank the shorter ears 8 are bent inwardly, and the longer ears 7 are then bent inwardly over the shorter ears, the openings 9 thereof coming in line with one another. A suitable packing-plate of pasteboard or felt cloth or other yielding material (indicated at 10 in Fig. 3) may then be placed against the inner side of these ears to avoid sifting or leaking, and the shell being then placed on a suitable former, preferably rounded at the end, the parts are pressed together to final shape and at the same time the rivet 11 is clenched, binding the parts together. The shell may then be filled with filling material, (indicated at 12,) which may be of any suitable nature, preferably of heavy fragmentary material, and the packing plate or disk 13 of pasteboard or other puncturable material is placed on top of the filling material, the upper ears 5 being then bent down thereover and the longer ears 3 being bent inwardly to overlap one another with their openings 4 in line. One of the openings 4 is preferably formed in the blank 1 and smaller than the other opening, so it can be expanded to form an eyelet, (indicated at 14 in Fig. 3,) which is clenched or upset over the other ear to bind the parts together, and the two ears 3 thus forming a bail extending from one side of the shell to the other. 15 indicates a suspending rope or cord, which is passed through this eyelet and knotted beneath the same.

The notches 6, above referred to, when brought opposite one another form an opening giving access to the pasteboard plate or disk 13, the latter being puncturable by means of a suitable tool, such as a screw-driver, to let out the desired amount of filling material in case the weight is found too heavy. As a safeguard a closure 16 may be provided, pivoted at 17 to one of the ears 5 to swing over the opening formed by the notches 6 to close the same. If desired, the packing-plate 13

may be omitted, the closure 16 being alone relied upon to retain the filling.

In case it is desired to have the seam at the side instead of at a corner of the tubular box-shaped casing, the side seam being generally the preferred form, the shell or blank may be formed as shown at 21 in Fig. 7, and in that case perforations (indicated at 29) may be provided in the longer lugs or ears 27 at the bottom of the blank, so that when the longitudinal edges of the blank are overlapped and clenched on one another these perforations 29 will come in line to enable them to receive the fastening-rivet. In this case also it is possible to make the corners of the tubular shell more or less rounded, if desired, and for this purpose the ears 23, 25, 27, and 28 at the top and bottom of the blank may be cut in or notched at their inner ends, as shown at 31, and slotted, as at 32, so as to allow the blank to be bent gradually or in a rounded shape at the corners. These insets also facilitate the bending over of the ears along a definite line. A similar purpose may be effected in the form of blank shown in Fig. 1 by scribing or scoring the blank along lines indicated at 30 30. The bail-ears 27 may be swelled at their bases, as shown at 33, to serve as guards to prevent the weight from catching.

What I claim is—

1. A sash-weight comprising a sheet of metal bent to form a tubular shell and with its ends inbent to form closures for the ends of the shell, the inbent upper ends of the shell also forming rope-attaching means, and filling of fragmentary material in said shell.

2. A sash-weight comprising a shell formed of a sheet of metal bent in tubular shape with ears at its lower end bent over one another and then secured together to form the bottom of the shell, and filling in said shell.

3. A sash-weight comprising a tubular shell formed of a metal sheet, having its edges secured together by a longitudinal joint and having ears at the lower end turned in to close said end, a packing-plate on the inside of said lower end, and filling in the shell above the packing-plate.

4. A sash-weight comprising a tubular metal shell closed at the bottom, said shell having parts at the top bent to extend in proximity to one another and formed with perforations to receive and support the cord.

5. A sash-weight comprising a tubular metal shell closed at the bottom, said shell having ears at the top bent over and overlapping one another and formed with perforations to receive the supporting-cord, and eyelet means at said perforations securing the ears together.

6. A sash-weight comprising a tubular metal shell closed at the bottom and having an opening in its top, a movable closure pivoted to the top for closing said opening, and filling in said shell.

In testimony whereof I have hereunto set my hand, at Los Angeles, California, this 25th day of November, 1904.

OSWALD F. ZAHN.

In presence of—

ARTHUR P. KNIGHT,
JULIA TOWNSEND.