W. D. BALLOU.

PACKING CASE.

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UNITED STATES PATENT OFFICE.

WILLIS D. BALLOU, OF BELDING, MICHIGAN.

PACKING-CASE.

No. 898,169.

Specification of Letters Patent.

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To all whom it may concern: .

Be it known that I, Willis D. Ballou, a citizen of the United States of America, residing at Belding, in the county of Ionia and 5 State of Michigan, have invented certain new and useful Improvements in Packing-Cases; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in 10 the art to which it appertains to make and use the same.

My invention relates to improvements in packing cases; and its object is to provide a light, strong, and durable structure for pack-15 ing and shipping goods, that may be repeatedly used without damage to the same; and it consists essentially of the combination and arrangement of a strong metal frame, a heavy canvas outer covering, and woven 20 wire inner fabric; and in the combination and arrangement of the same, as will more fully appear by reference to the accompanying drawings, in which:

Figure 1. is a perspective of a packing case 25 embodying my invention with portions broken away; Fig. 2. a perspective of the frame of the same; Fig. 3. a perspective of the canvas covering and the bottom portion of the woven wire fabric; and, Fig. 4. an en-30 larged detail in vertical section.

Like numbers refer to like parts in all of

the figures.

In constructing my device, I provide a strong frame preferably of metal and hard .35 wood as shown in Fig. 2., in which 1 represents strips of metal extending transversely at intervals across the bottom of the structure and thence upward in parallel lines at the sides. 2 represents like strips arranged 10 longitudinally of the bottom and thence extending upward in parallel lines at the ends of the structure, the outer vertical members thereof extending opposite the corners of the canvas to protect the same. At the top 45 these vertical portions of the metal strips 1 and 2 all terminate in the same horizontal plane and are securely connected by a horizonially arranged outer frame 3 and a like inner frame 4 secured in any convenient 50 manner.

Beneath each longitudinal strip 2 is a shoe or sill 5 on which the device is supported and slidable as occasion requires. Within this frame is a canvas covering (illustrated in Fig. 55 3.) made of rectangular pieces 6 and 7, the piece 6 being of a width equal to the length of !

the interior of the structure, extending transversely across the bottom and thence upward at each side and the piece 7 extends longitudinally of the bottom and thence upward at each 60 end and is of sufficient width to fold over at the margins and overlap the bottom angle and side edges of the piece 6 and is secured thereto preferably by sewing. Between the bottom portions of these pieces of canvas is a rec- 65 tangular piece of woven wire fabric 9, which provides a substantial bottom support covered by said canvas on both its outer and inner sides. Within the canvas covering and opposite the ends and sides thereof is 70 also arranged a layer of woven wire fabric 9 secured to the inner frame 4 at the top. Between this wire fabric and the covering 6 and opposite each vertical member of the strips 1 and 2 is arranged a stile 10, preferably of hard 75 wood and of the same thickness as the frame 4. The vertical portions of the canvas 6 and 7 are securely fastened between these stiles 10 and the metal strips 6 and the wire fabric lining is also supported by the stiles 10 and 80 secured thereto. I, thus provide a very strong, light and substantial structure also having the desirable quality of being impervious to dust, and moisture by virtue of the closely woven canvas covering. This recep- 85 tacle is preferably provided with some convenient closure for the top as illustrated in Fig. 1.

Obviously the described material may be varied by using other suitable materials with- 90 out departing from my invention. So also wire fabric might be of woven flat strips of either metal or wood, as preferred.

What I claim is:

In a packing case the combination of 95 spaced strips arranged transversely and longitudinally of the bottom and extending vertically at the sides and ends, an inner and outer frame secured to the upper ends of the vertical strips and spaced by the latter, a can-100 vas lining within the inner frame and secured thereto, said lining comprising two pieces arranged transversely in the bottom with one piece extending vertically at the sides and the other piece extending vertically at the 105 ends, the bottom piece of the lining also folded at the edges against the top piece along the bottom angles and also at the corners and secured thereto, a woven wire fabric between the bottom portions of the lining, 110 stiles opposite the vertical strips and bearing against said lining, and woven wire fabric

bearing against the inner faces of the side and end portions of the lining and secured to said inner frame and also bearing against the inner surfaces of the stiles, the woven wire 5 fabric at the sides and ends being independent of the woven wire fabric at the bottom of the case.

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

WILLIS D. BA'LLOU.

Witnesses:

R. A. REYNOLDS, J. W. Wells.