(No Model.)

E. T. KEPNER.

SHIPPING CASE OR BOX.

No. 473,702. Patented Apr. 26, 1892.

Fig. 1

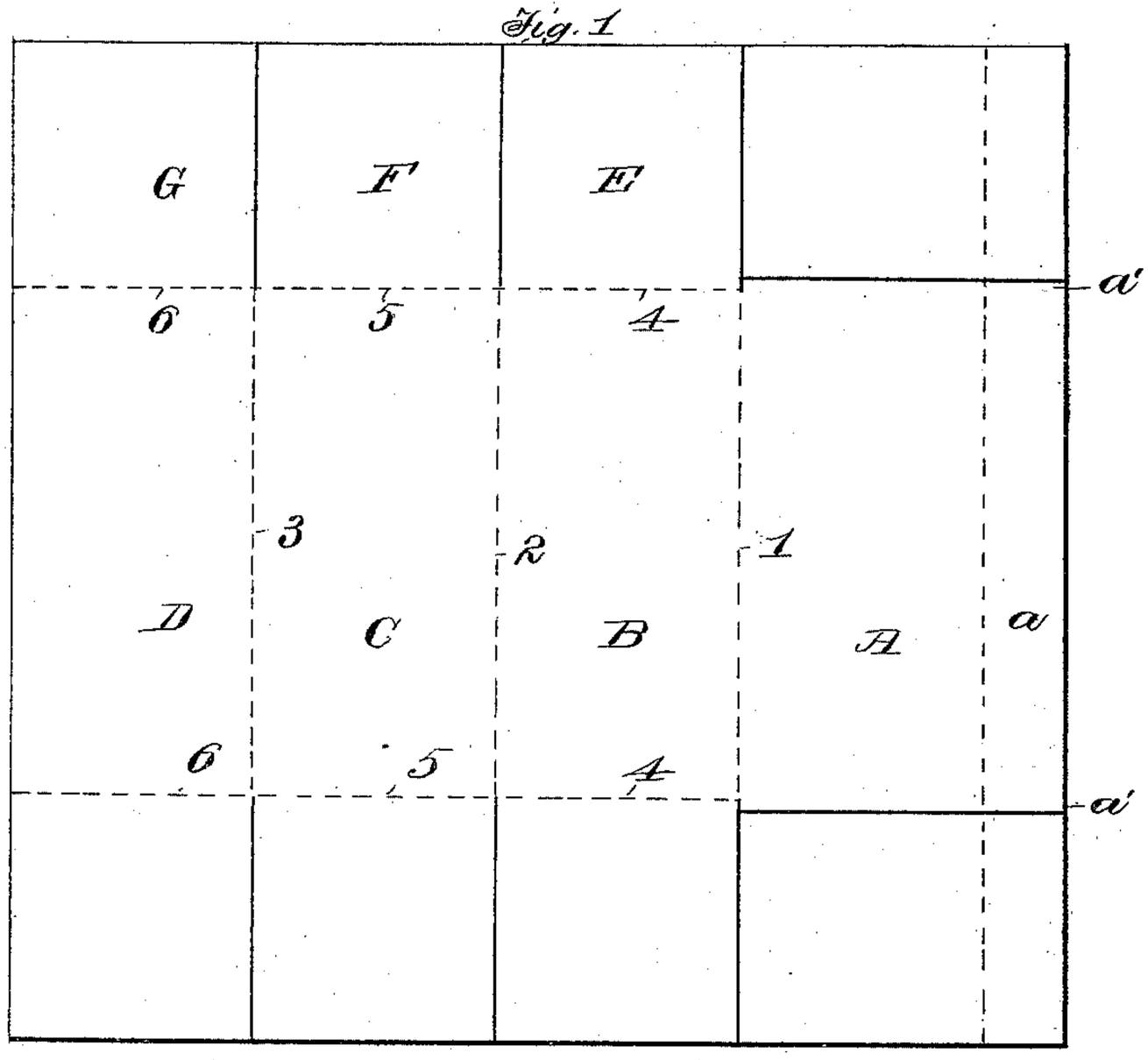


Fig. 2.

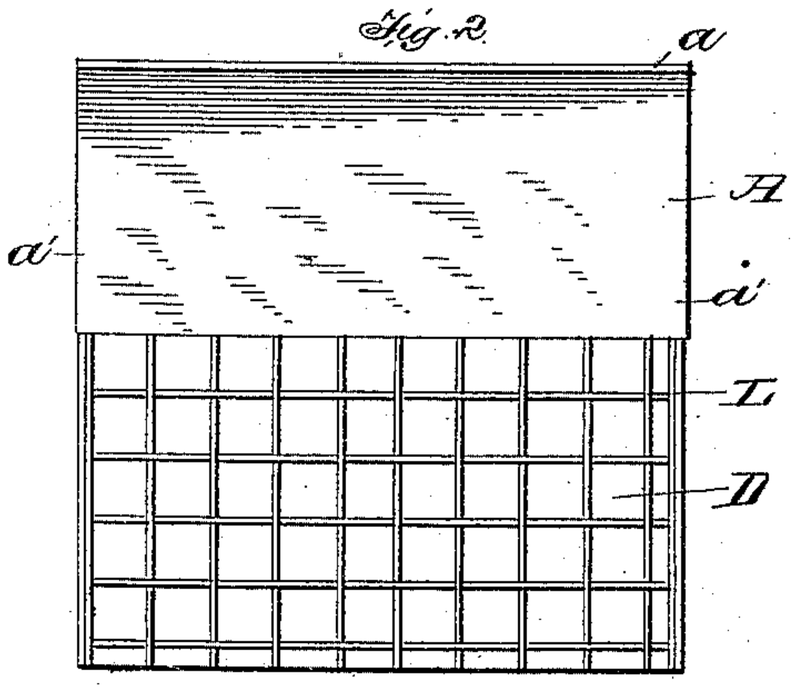


Fig. 3

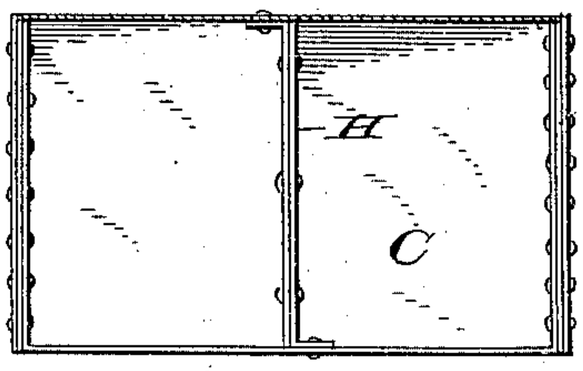


Fig. 4

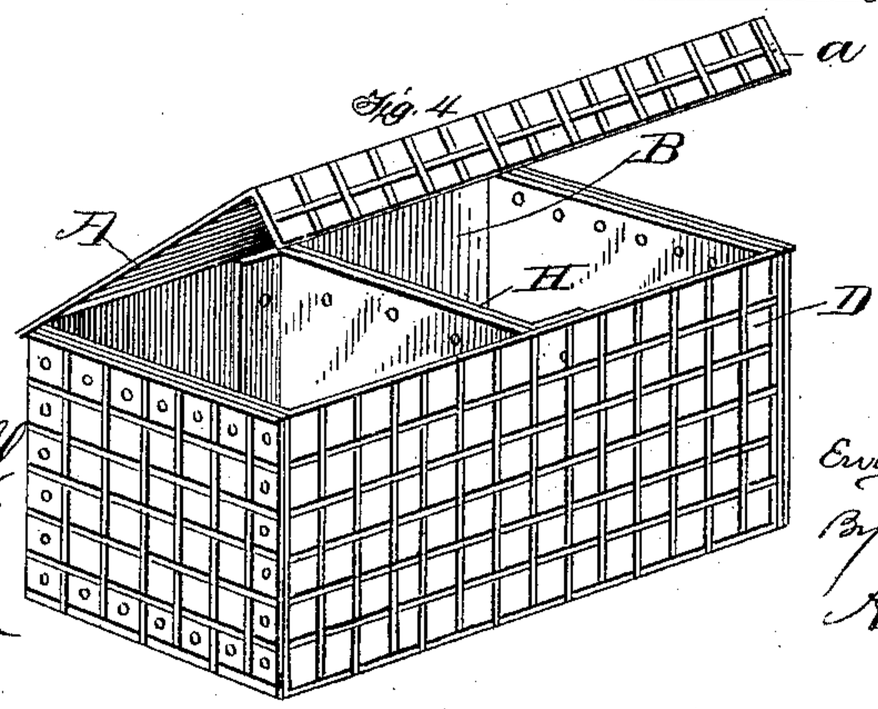
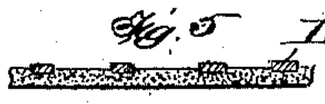


Fig. 5



Witnesses:
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L. S. Bacon

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By
A. P. Stewart
his atty.

UNITED STATES PATENT OFFICE.

EUGENE THOS. KEPNER, OF HELENA, MONTANA.

SHIPPING CASE OR BOX.

SPECIFICATION forming part of Letters Patent No. 473,702, dated April 26, 1892.

Application filed July 7, 1891. Serial No. 398,699. (No model.)

To all whom it may concern:

Be it known that I, EUGENE THOMAS KEPNER, a citizen of the United States, residing at Helena, in the county of Lewis and Clarke and State of Montana, have invented certain new and useful Improvements in Shipping Cases or Boxes; 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 the art to which it appertains to make and use the same.

My invention relates to an improvement in shipping cases or boxes; and it consists in the construction and arrangement of parts more fully hereinafter described, and definitely pointed out in the claim.

The object of my invention is the provision of a shipping-case which will be readily "knocked down," and when built up will embody the essential characteristics of lightness, durability, cheapness, and simplicity of structure, embodying the fewest possible number of separate parts, and, further, to construct a case of an improved combined fibrous material and metal. I attain this object by the construction illustrated in the accompanying drawings, forming a part of this specification, wherein like letters of reference indicate corresponding parts in the several views, and in which—

Figure 1 is a top plan view of the lower face of a blank. Fig. 2 is a front elevation of a box complete. Fig. 3 is a top plan view of a box with the cover removed. Fig. 4 is a perspective view of a complete box, and Fig. 5 is a detail section of a portion of material used in constructing the box.

In the drawings, A represents the cover, having a flap *a* on its front edge and end extensions *a'*.

B is the rear, C the bottom, and D the front, of a box formed of a single piece of material, preferably strawboard. Creases 1, 2, and 3 are formed in the material at the point of bending.

E F G represent the end extensions of the portions B C D. They are formed integral with said portions and separated from each other by an intervening space, which extends inward to points beyond the projecting ends of the cover. Creases 4, 5, and 6 are formed between the ends and the body at the ends of the intervening spaces to indicate the point of bending.

In the box portion B, I secure a central partition H, composed of two overlapping sections, one end of one section being bent at right angles and the opposite end of the other section being bent at right angles in the opposite direction to form fastening portions. These sections are taken from the ends of the cover, the flap forming the right-angle projections or bends.

The parts above mentioned are substantially rectangular, and when the box is to be formed they are arranged as follows: The end parts E and G overlapping and forming the ends of the box with the part F, which is bent up on the outside of or between the parts E and G. The cover A is then bent down and the flap *a* bent at an angle onto the front part, the extensions *a'* extending beyond the tops of the ends to protect the same. The partition is placed transversely across the center of the box and its projecting ends are secured to the back and front, respectively, by pliable staples or fasteners, which are inserted through the material of the body and through the parts of the partitions to unite the same. The ends of the box are secured by inserting the ends of a fastener K through the three thicknesses of the material.

By the above construction it will be noticed that the box may be quickly built up and the use of nails or screws is entirely dispensed with.

In knocking down the box I withdraw the fasteners from the end pieces and from one end of the partition. The parts are then folded down one on the other, the partition resting on the back.

In the formation of the box as above described it is evident that the portions at the creases would crack or weaken as the material is bent. It is also apparent that the fasteners would pull out, which objections I overcome by forming the material out of combined strawboard and metal, as shown in detail in Figs. 4 and 5, wherein L represents a series of wires or flat metal strips, preferably of malleable or other pliable iron, arranged at right angles or parallel and embedded and cemented in the outer face of the box, their outer faces being slightly above, even with, or

within the strawboard. These strips are pressed into the board when the same is in its pulpy state or being prepared. By placing the metal strips on or near the outside they not only reinforce the box, but also shield the sides and prevent the same from being torn or bent by exterior objects or rough handling. They also prevent the fasteners from being drawn out by having the ends of the fasteners extended beyond the metal strips. A more perfect hinge is also formed by the metal at the bends of the board.

I am aware that many minor changes in the construction and arrangement of the parts of my device can be made and substituted for those herein shown and described without in the least departing from the nature and principle of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A shipping-case consisting of a folded blank of paper-board having its entire outer surface sheathed with a metallic fabric embedded in and cemented to the board, the sides and end of the blank being bent up and secured by fastenings passing through the meshes of the fabric and board and having their edges bent over the adjacent strands of the fabric and a cover integral with the blank, substantially as described.

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

EUGENE THOS. KEPNER.

Witnesses:
A. McMURPHEY,
THOS. P. WOOD.