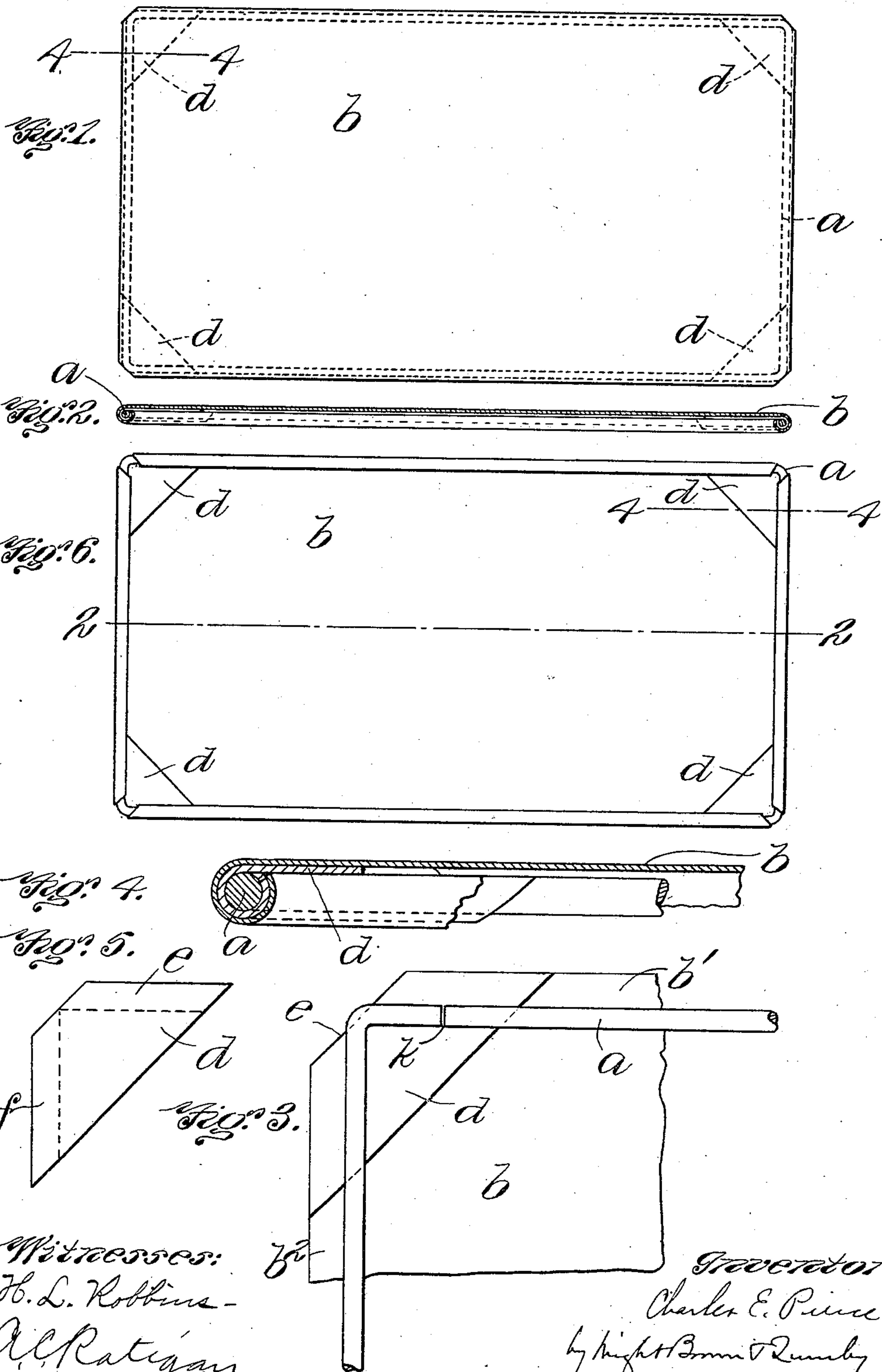


No. 868,121.

PATENTED OCT. 15, 1907.

C. E. PIERCE.  
BAKING PAN.

APPLICATION FILED OCT. 20, 1904.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

CHARLES E. PIERCE, OF CAMBRIDGE, MASSACHUSETTS.

## BAKING-PAN.

No. 868,121.

Specification of Letters Patent.

Patented Oct. 15, 1907.

Application filed October 20, 1904. Serial No. 229,254.

*To all whom it may concern:*

Be it known that I, CHARLES E. PIERCE, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Baking-Pans, of which the following is a specification.

This invention relates to pans used for baking crackers, etc., and has for its object to provide a remedy for a serious defect inherent in such pans. These pans are usually constructed of sheet metal stiffened either by bending the edges of a blank of the sheet metal upon themselves to form integral tubular edge portions, or by rolling the edges over the sides of a polygonal frame made of stiff wire or a small rod bent into the proper shape, the blank being cut in the form of a rectangle or other polygon having the same proportions as the frame but with the corners removed to permit the bending of the edges. After a certain amount of usage the pans show a tendency to break diagonally inward from the corners, with the result that those parts are unevenly heated and the crackers, etc., nearest the breaks are burned.

By my invention I provide a pan of this character having corner-reinforcing pieces which protect the bottom piece at the corners and prevent the breaking referred to.

The invention consists in the article having the features hereinafter described and claimed.

Of the accompanying drawings,—Figure 1 represents a plan view of a baking pan constructed in accordance with my invention. Fig. 2 represents a section of the same on line 2—2 of Fig. 6. Fig. 3 represents a bottom plan view on an enlarged scale, of a portion of the blanks and frame from which this pan is constructed, the parts being shown in the relative position they occupy preliminary to bending the edges of the blank over the frame. Fig. 4 represents a section on an enlarged scale, taken on the line 4—4 of Fig. 1. Fig. 5 represents a plan view of the blank from which the corner-reinforcing piece is made. Fig. 6 represents a plan view of the under side of the baking pan.

The same reference characters indicate the same parts in all the figures.

Baking pans of this character consist of a flat metal plate *b* made from a blank of sheet metal and generally a frame *a* about the sides of which the edges of the blank are bent or wrapped to hold the parts together. The metal sheet is, of course the essential part of the article, but the material of which it is made is generally so thin as to bend easily, and unless handled carefully would spill off the crackers, etc., placed upon it, if used alone without additional stiffening means. Such necessary stiffness is supplied by the frame *a* which may be made of stiff wire or a rod of small diameter

bent into rectangular or other suitable polygonal shape, or it may be made of a plurality of rods joined together. The sheet *b* is of the same general shape and proportions as the frame but has greater dimensions and its corners are truncated to provide extensions *b'* *b*<sup>2</sup>, which project beyond the sides of the frame when placed upon it preparatory to being connected thereto, as seen in Fig. 3. The extensions are then bent down, under and around the sides of the frame, securely connecting the parts together.

In some cases, where cheapness of construction is sought, it is desirable to omit the wire frame, the necessary stiffness being supplied by rolling the edges of the blank under upon a mandrel, then removing the mandrel, leaving the pan formed with integral tubular stiffened edges or hollow rim. This construction, however, is less rigid and durable than the form first described. Pans thus constructed almost always break and crack at the corners of the sheet *b* along lines extending from about the middle of the diagonal edges *e* (Fig. 3) perpendicularly inward, after a certain amount of use, and in order to provide an article of this character which is free from this weakness, I have devised a baking pan having stay-pieces *d* attached thereto at the corners. These stay-pieces or corner protectors are formed from blanks of sheet metal, preferably thicker and stronger than that from which the piece *b* is made, having the shape of a truncated triangle, as seen in Fig. 5, and are attached to the pan by being placed between the frame and sheet *b*, before the latter parts are connected, with their edges *e f* in line with the edges of the sheet, and are then wrapped about the adjacent sides of the frame with the sheet *b* and inside the latter. The protecting pieces may be applied to pans made without the frame in a similar manner, simply by rolling the edges inside the edges of the top piece *b*. These stay-pieces strengthen the corners of the pan, and protect the same from the breaking due to unequal expansion and contraction of the sheet and frame on heating and cooling the pan, and that due to wear and tear or accidental cause, so that the life of pans so made is greatly prolonged over those of the old form. The use of the stay-pieces also permits the pans to be constructed more cheaply by avoiding the necessity of welding together the meeting ends of the frame. With the old construction the ends of the frame are caused to meet about at the middle of one of the end edges of the pan, and must be welded together to give sufficient stiffness. Otherwise the pan will first bend and then break at that point. By using the stay-piece, however, I can bring the meeting ends of the frame near one corner of the pan and approximately at the middle of one of the edge projections of the stay-piece at the point *k*. The added stiffness given by the stay-pieces holds these



ends together and in line, and thus avoids the necessity of forming a weld, the expense of which is nearly as great as that of the whole pan.

I claim:—

- 5 1. A baking pan comprising a frame, a top piece consisting of a single sheet of metal having its edges secured to the frame by being rolled about the same, and independent corner stay pieces, each being a separate triangular piece of sheet metal laid against the top piece at a  
10 corner thereof between the top piece and the frame, and having its outer edges rolled about the convergent adjacent members of the frame within the rolled edges of the top piece.
- 15 2. A baking pan comprising a frame, a top piece consisting of a single sheet of metal having its edges secured to the frame by being rolled about the same, and independent corner stay pieces, each being a separate trian-

gular piece of sheet metal thicker than the top piece laid against the latter at a corner thereof between the top piece and the frame, and having its outer edges rolled about the convergent adjacent members of the frame within the rolled edges of the top piece. 20

3. A baking pan provided with a top piece consisting of a single sheet of metal having its edges rolled, and independent corner stay pieces each formed of a separate triangular piece of sheet metal laid against the top piece at a corner thereof beneath the same, and having its outer edges rolled within the convergent rolled edges of said top piece. 25

In testimony whereof I have affixed my signature, in presence of two witnesses. 30

CHARLES E. PIERCE.

Witnesses:

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