

(No Model.)

L. H. MONTROSS.
METALLIC ROOFING OR SIDING.

No. 397,381.

Patented Feb. 5, 1889.

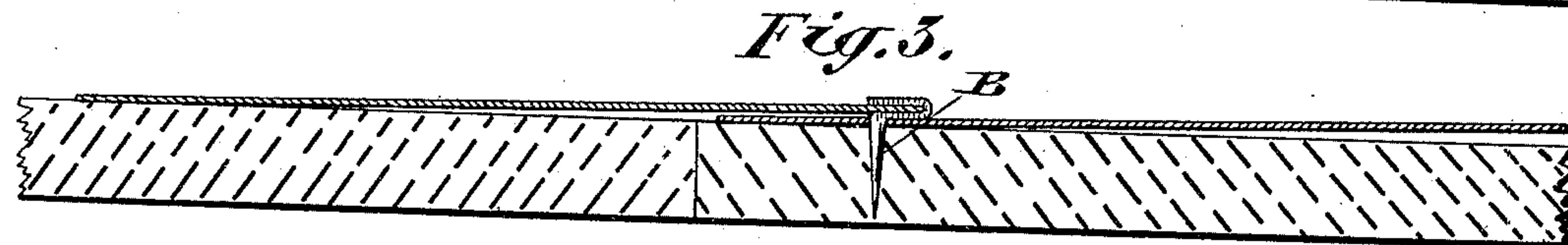
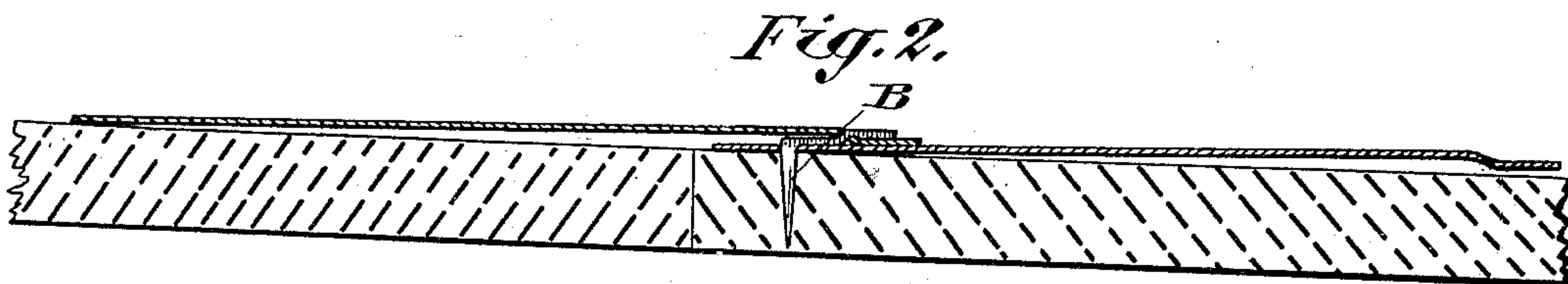
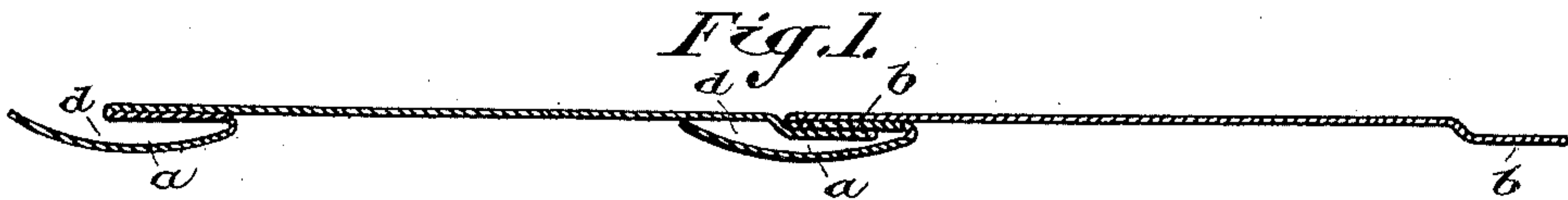
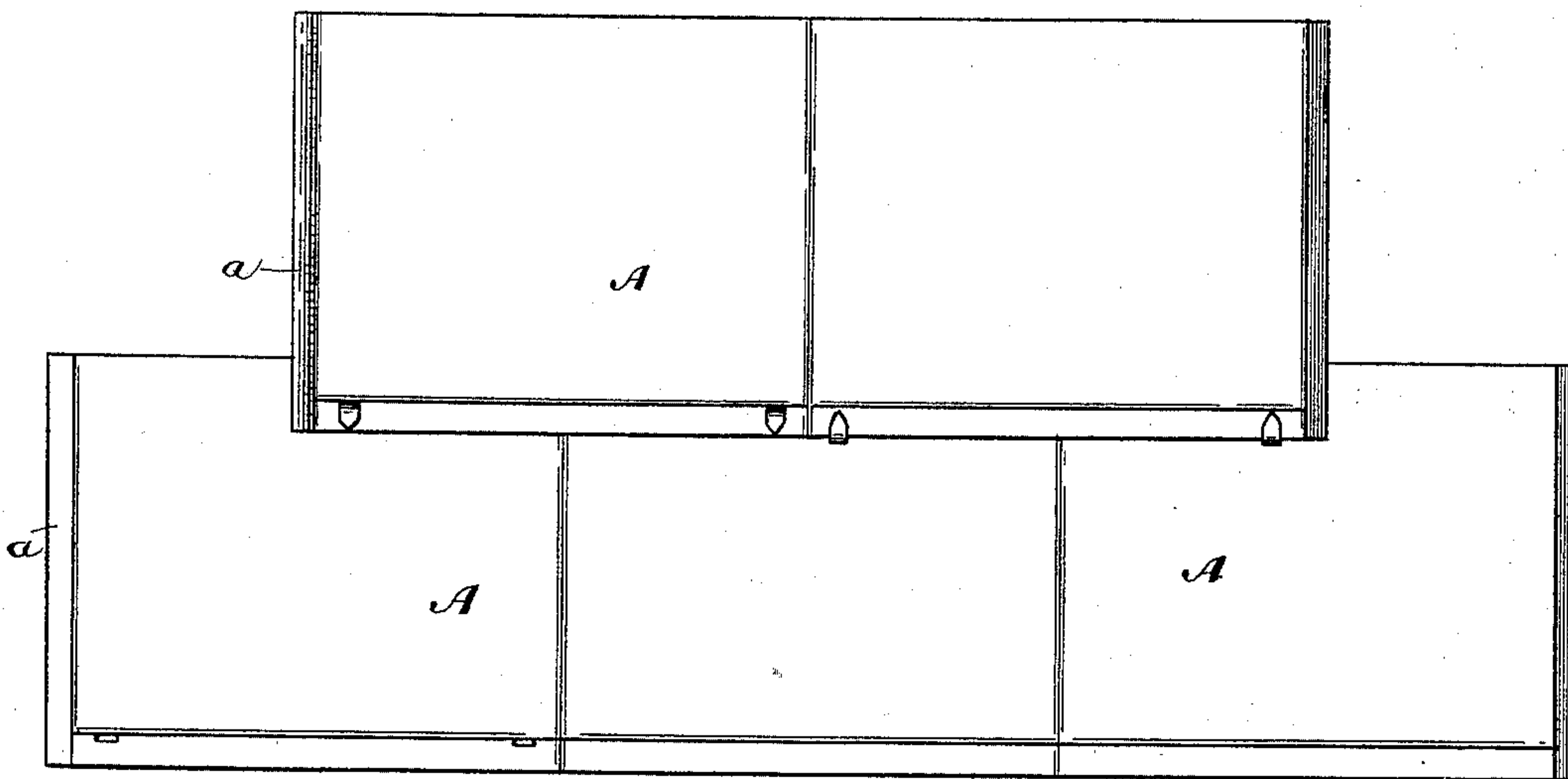


Fig. 4.

Witnesses.
F. B. Fetherstonhaugh.
Chas. H. Riches.

Fig. 5. Inventor.
L. H. Montross
By Donald C. Ridout & Co.
Attys

UNITED STATES PATENT OFFICE.

LEVI H. MONTROSS, OF TORONTO, ONTARIO, CANADA.

METALLIC ROOFING OR SIDING.

SPECIFICATION forming part of Letters Patent No. 397,381, dated February 5, 1889.

Application filed September 12, 1888. Serial No. 285,173. (No model.)

To all whom it may concern:

Be it known that I, LEVI H. MONTROSS, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented a certain new and useful Improvement in Metallic Roofing or Siding, of which the following is a specification.

The object of the invention is to form the edges of the plates or shingles in such a manner that the vertical joints shall have water-channels formed below them without raising the top surface of the plates or shingles, and to form an expansion horizontal joint; and it consists, essentially, of a sheet-metal plate or shingle having one side folded to form a pocket below the level of its bottom surface, the portion of the said plate or shingle extending beyond the fold being depressed, and its edge upwardly curved, so as to come in contact with the bottom surface of the adjoining plate, the edge of which is slightly depressed, so as to permit it to enter the pocket, horizontal joints being formed by the upper plate or shingle overlapping the bottom plate or shingle, the two being secured together and to the roof or structure by pins bent so as to clasp and secure in position the said plates or shingles, substantially as hereinafter more particularly explained.

Figure 1 is a plan view showing a single plate or shingle and parts of four adjoining plates or shingles in position. Fig. 2 is an enlarged cross-section of the vertical joint. Fig. 3 is an enlarged cross-section of a horizontal joint. Fig. 4 is an enlarged cross-section of the horizontal joint, showing the fastening-pin bent over the edge of the shingle. Fig. 5 is an enlarged detail of the fastening-pin.

On reference to Fig. 2 it will be noticed that one side of the shingle or plate A is folded to form a pocket, *a*, below the bottom surface of the plate, and the portion of the plate A which projects beyond the said pocket is depressed, and its edge upwardly curved toward the bottom surface of the adjoining plate, the edge *b* of which is slightly depressed, so as to permit it to enter the pocket *a*, the depressed portion of the plate forming a water-channel, *d*, which channel collects and conveys away any water which may pass through the joint formed in the pocket *a*. It will be noticed

that this joint and water-channel are formed entirely below the bottom surfaces of the plates A, and as a consequence the top surface is perfectly smooth.

B represents a pin, one point of which may be formed nail shape, screw shape, or perfectly plain, to suit the material of the roof or structure on which the plates or shingles are to be secured, so that the said pin may be screwed, driven in, or riveted to the structure, the pin being bent, as indicated, so as to secure the bottom plate or shingle to the structure. The upper plate, which overlaps the edge of the bottom plate, may be secured in position by the end of the pin B projecting through a hole near the edge of the said plate or shingle, as indicated in Fig. 3, or the end of the pin may be bent back over the edge of the upper plate, as indicated in Fig. 4. In either case both plates are securely held to the structure without interfering with the necessary expansion-joints between the plates.

What I claim as my invention is—

1. A sheet-metal plate or shingle having one side folded to form a pocket below the level of its bottom surface, the portion of the said plate or shingle extending beyond the fold being bent upwardly toward the bottom surface of the adjoining plate, the edge of which fits into the pocket, substantially as and for the purpose specified.

2. A sheet-metal plate or shingle having one side folded to form a pocket below the level of its bottom surface, the portion of the said plate or shingle extending beyond the fold being depressed and its edge upwardly curved toward the bottom surface of the adjoining plate, the edge of which fits into the pocket, substantially as and for the purpose specified.

3. A series of sheet-metal plates or shingles having a joint formed by the upper plate or shingle overlapping the bottom plate or shingle, the two being secured together and to the roof or structure by pins having one end only inserted in the structure to which the shingles are secured and the other end bent parallel with the body of the shingle, so as to clasp and secure in position the said plates or shingles, substantially as and for the purpose specified.

4. A series of plates or shingles having the

vertical joints connecting them formed by
folding one side to form a pocket below the
level of its bottom surface, the portion of the
said plate or shingle extending beyond the
5 fold being depressed and its edge upwardly
curved toward the bottom surface of the ad-
joining plate, the edge of which fits into the
pocket, and the horizontal joints formed by
the upper plate or shingle overlapping the
10 bottom plate or shingle, the two being se-

cured together and to the roof or structure by
pins bent so as to clasp and secure in position
the said plates or shingles, substantially as
and for the purpose specified.

Toronto, September 8, 1888.

LEVI H. MONTROSS.

In presence of—

CHARLES C. BALDWIN,
JOHN G. RIDOUT.