

H. C. JOHNSON.
Stove-Pipe Flues.

No. 153,082.

Patented July 14, 1874.

Fig. 1

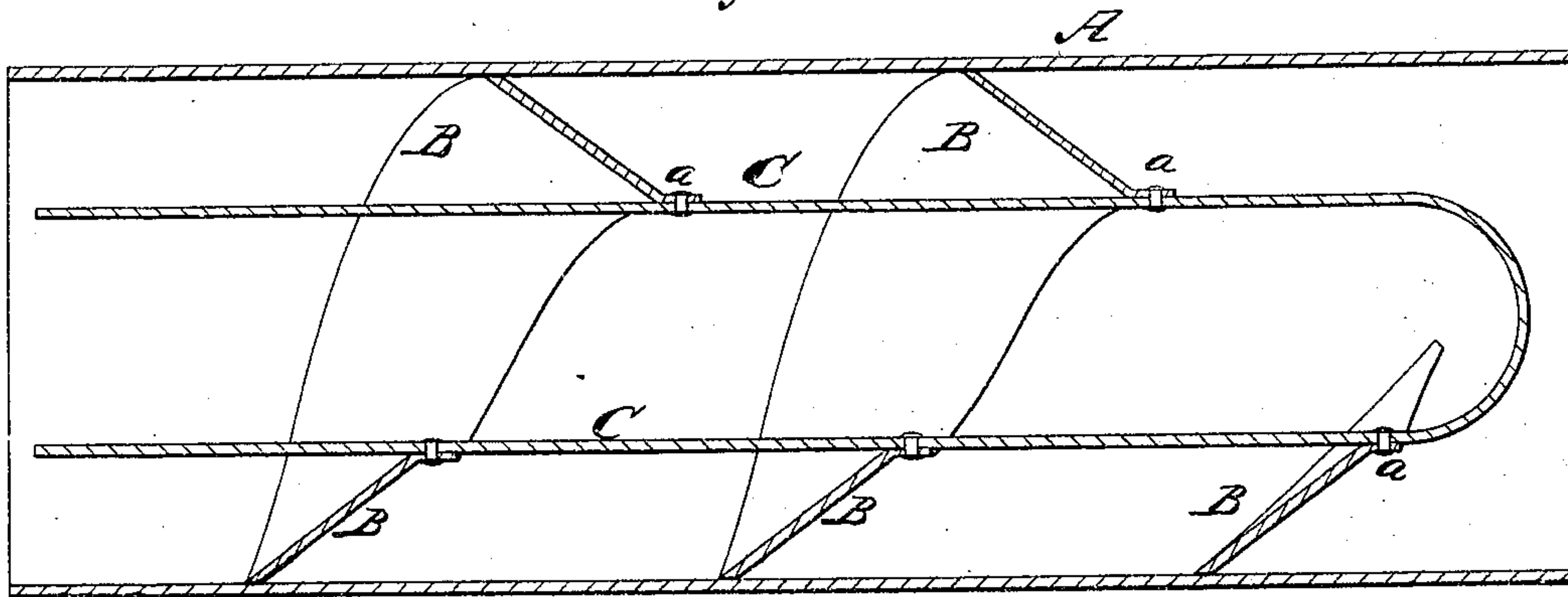


Fig. 2

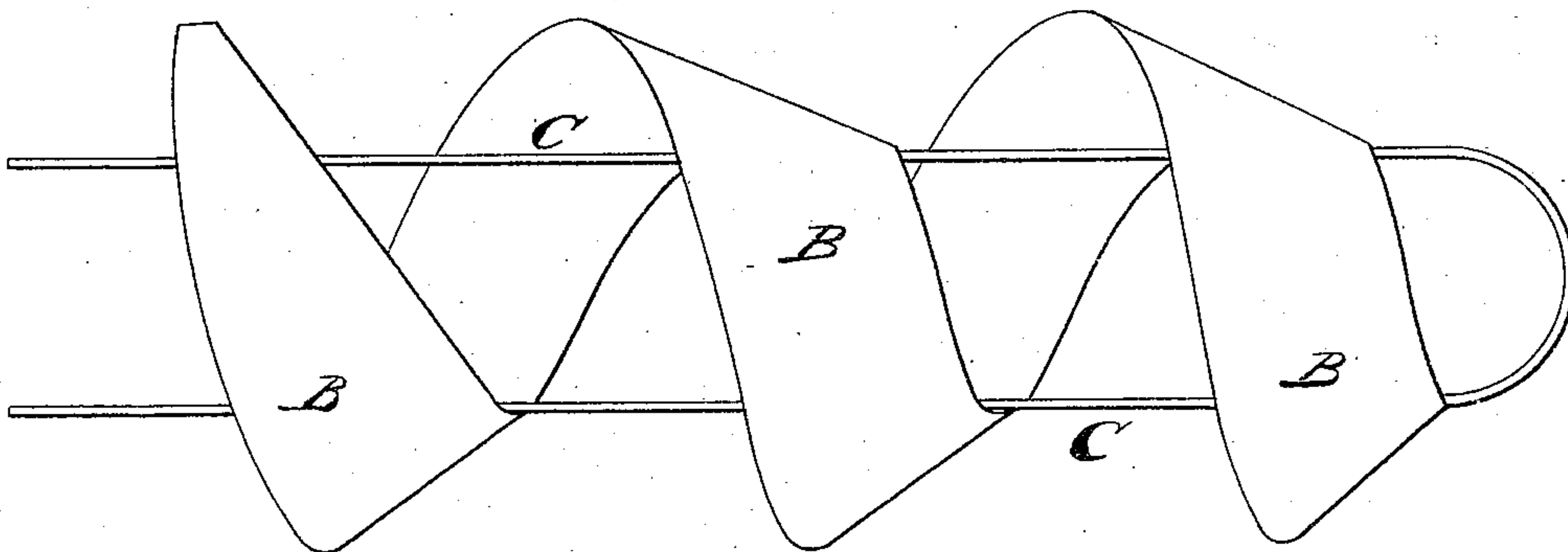
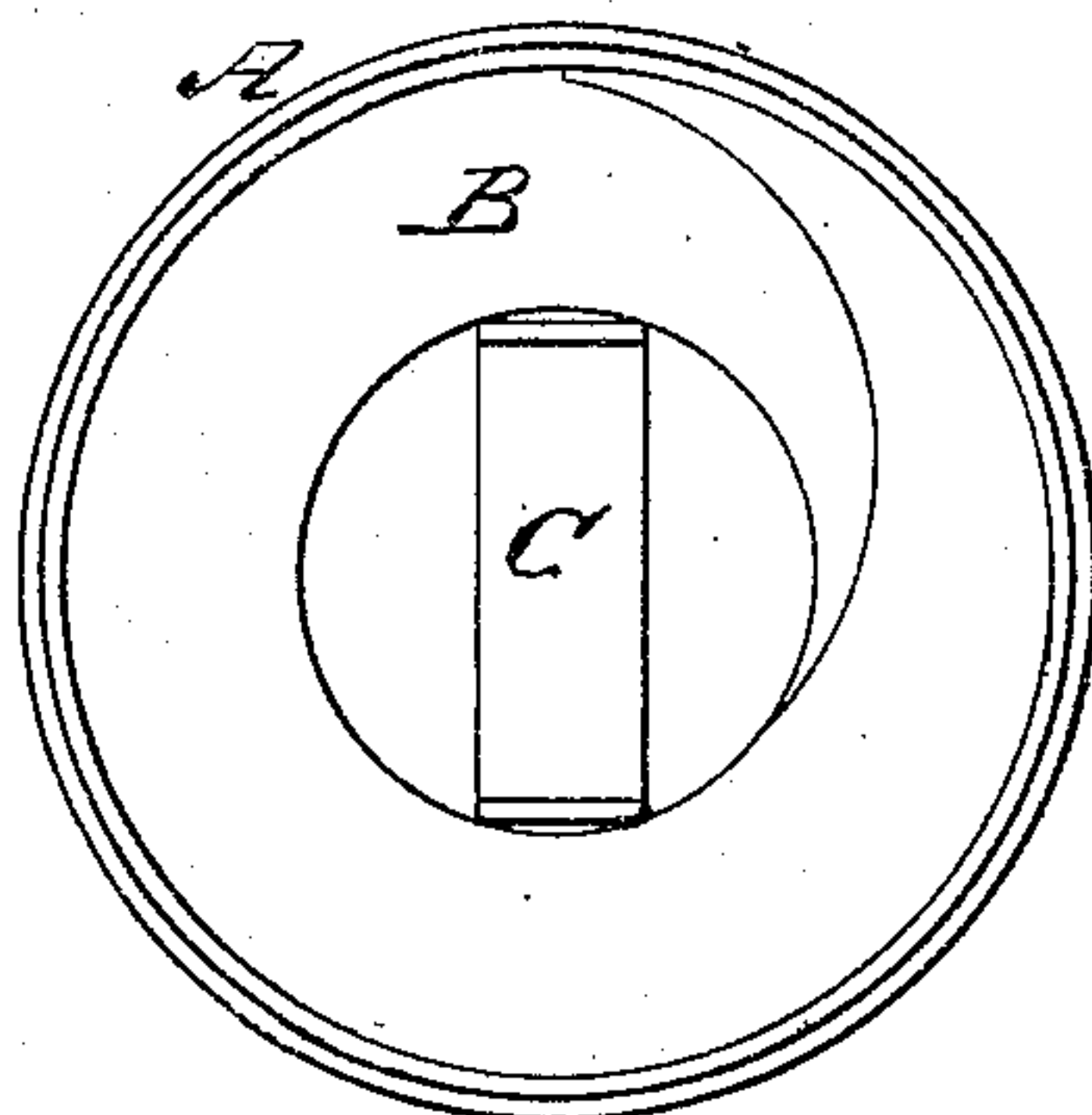


Fig. 3



WITNESSES

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BY

INVENTOR

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UNITED STATES PATENT OFFICE.

HENRY CORNELIUS JOHNSON, OF DALLAS CITY, ILLINOIS.

IMPROVEMENT IN STOVE-PIPE FLUES.

Specification forming part of Letters Patent No. **153,082**, dated July 14, 1874; application filed June 6, 1874.

To all whom it may concern:

Be it known that I, HENRY C. JOHNSON, of Dallas City, in the county of Hancock and State of Illinois, have invented a new and valuable Improvement in Flues; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a sectional view of my device; and Fig. 2 is a detail view. Fig. 3 is an end view.

This invention has relation to flue-pipes for stoves, and other like heating devices, whenever it is desired to arrest the escape of the products of combustion without materially retarding the draft.

The improvement which I have invented consists in the application, within a stove-pipe or other flue leading from a fire-chamber, of a coiled blade which is provided with a U-shaped spring for keeping its peripheral edges in close contact with the interior surface of the pipe or flue, which blade will direct the heated currents toward the center of the pipe or flue, and give to them a rotatory motion, thereby preventing much radiation of heat from the pipe or flue without materially interfering with the natural draft, as will be hereinafter more fully described.

In the annexed drawings, A designates a stove-pipe of cylindrical form, into which is inserted a spiral blade or deflecting strip, B, of which the flanges extend inwardly a certain distance from the interior surfaces of the pipe A. C designates a U-shaped metallic spring, the free extremities of which are inserted lon-

gitudinally through the hollow of the blade B, and which is rigidly secured thereto by means of rivet *a*.

To use and apply my improvement, I insert it into that section of pipe which is passed from a room into a chimney-flue through a perforation made for that purpose, when the spring C will cause the said blade to be forcibly held against the interior surfaces of the above-mentioned section of pipe, and if now it be connected with the main inner pipe of a stove in which a fire is then kindled, the heated products of combustion will be guided away from the pipe, and thus it will not be greatly heated, whereby all danger of fire being communicated to the house is obviated, while at the same time the said blade will not appreciably obstruct the natural draft of the stove.

Heretofore it has been usual to surround and attach the coiled blades to a central rod; but my improvement consists in applying the blades to an expanding spring, whereby their peripheral edges are kept in contact with the flue.

What I claim as new, and desire to secure by Letters Patent, is—

The combination, with the coiled blade B, of the U-shaped spring C, for keeping the peripheral edges of the blade B in close contact with the interior surface of the flue, substantially as shown and described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HENRY CORNELIUS JOHNSON.

Witnesses:

BALTUS H. PICKELL,
JOHN C. DOUGHERTY.