

B. D. WASHBURN.
Blind-Hinges.

No. 214,214.

Patented April 8, 1879.

Fig. 1.

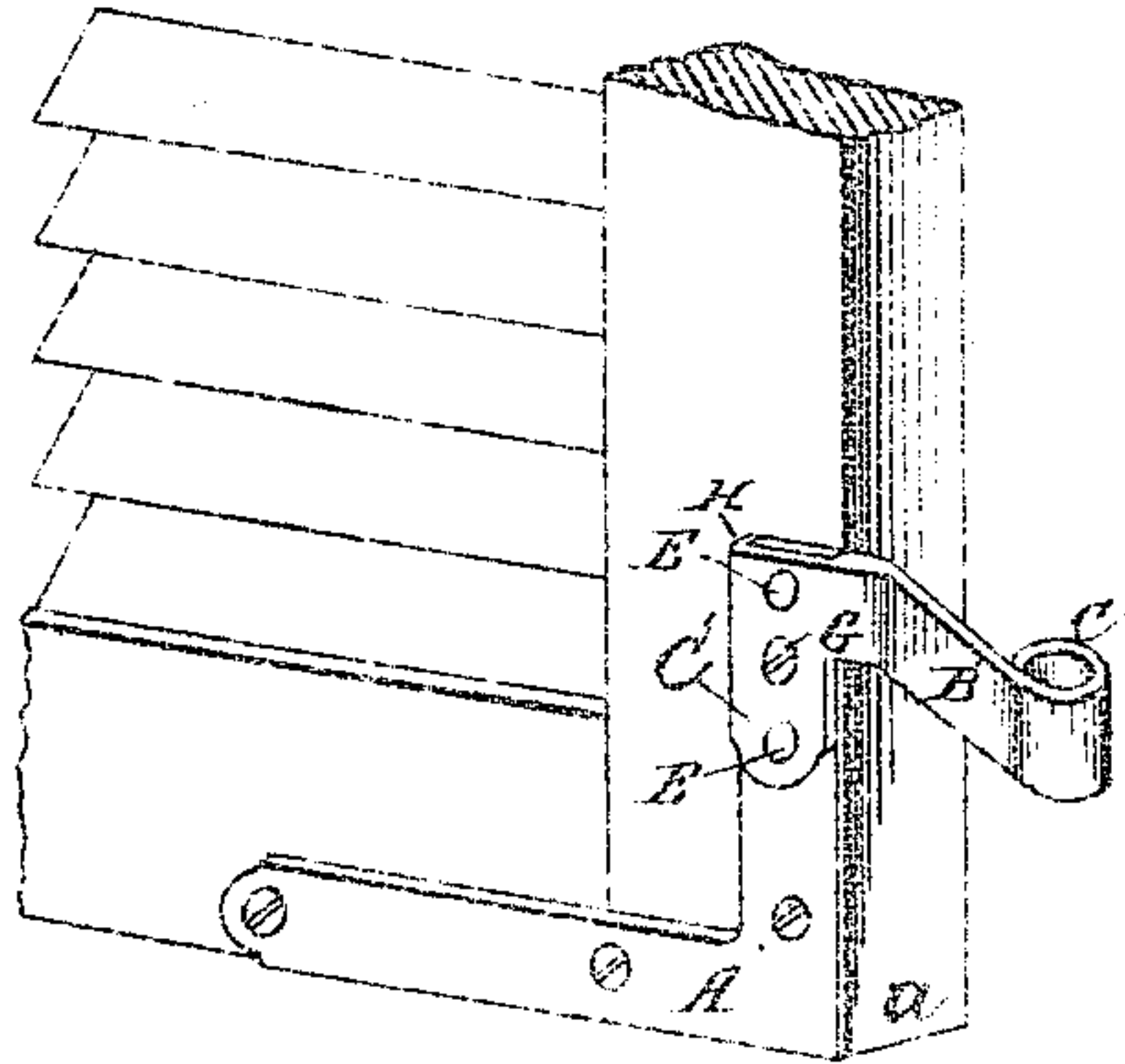


Fig. 2.

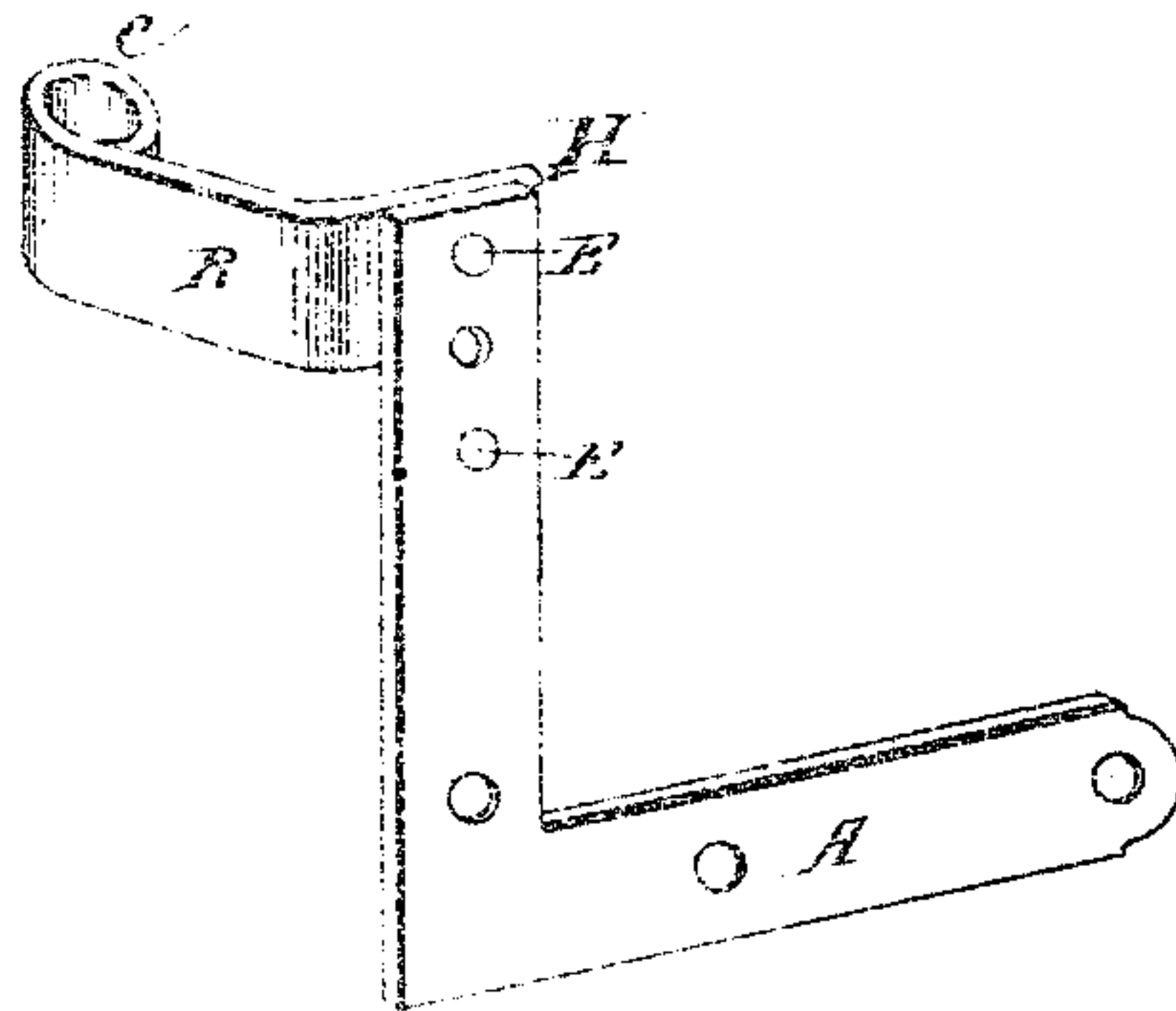


Fig. 3.

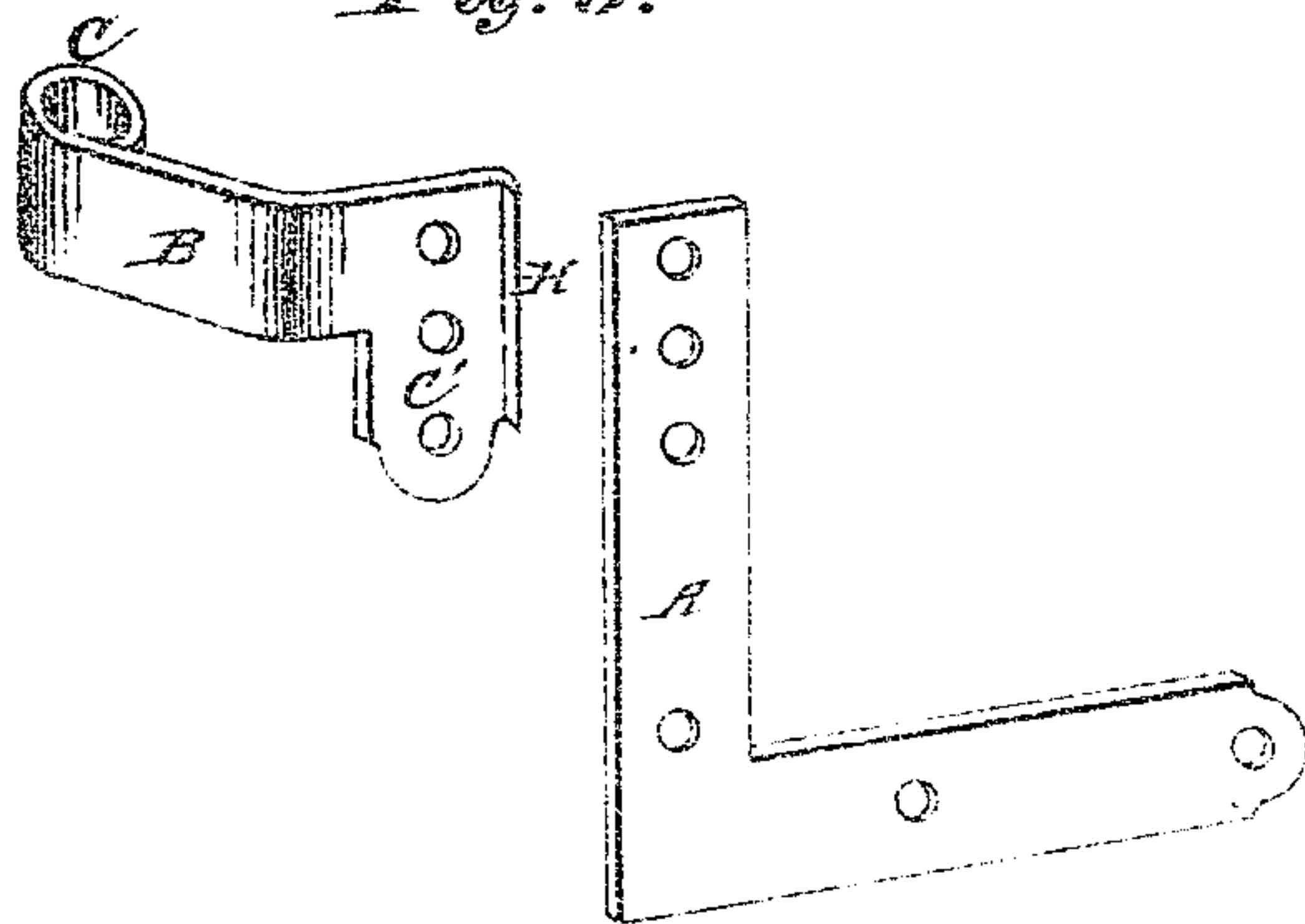


Fig. 4.

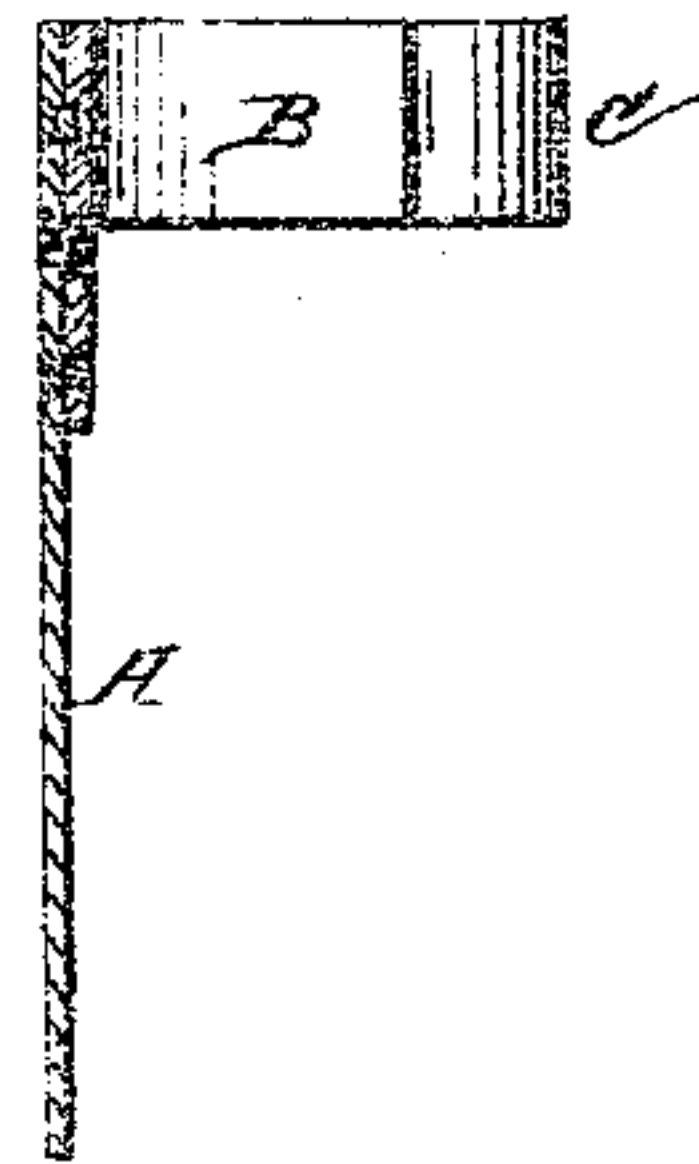
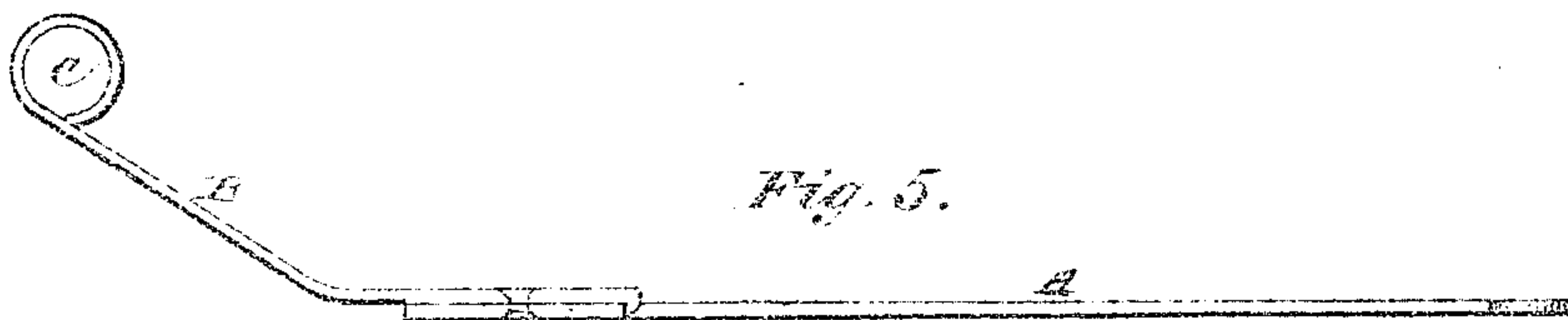


Fig. 5.



Witnesses:

J. L. Coomes,
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UNITED STATES PATENT OFFICE

BENJAMIN D. WASHBURN, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN BLIND-HINGES.

Specification forming part of Letters Patent No. 214,214, dated April 8, 1879; application filed September 11, 1876.

To all whom it may concern:

Be it known that I, BENJAMIN D. WASHBURN, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Blind-Hinges, of which the following is a specification.

This invention has for its object to furnish a blind-hinge which shall be durable and simple in its construction, and easily manufactured and applied in position, and is an improvement upon the blind-hinge for which Letters Patent No. 151,942 were granted to me on the 9th day of June, 1874.

The invention consists in forming the hinge-arm, or part which connects with the fixed pintle, and the elbow-plate of separate pieces of wrought-iron, the arm portion being somewhat thicker than the elbow portion, and provided with a laterally-projecting lip, which lies upon said elbow portion, and has a flange which fits against the edge thereof, the two separate parts—that is, the elbow and arm portions—being united by means of rivets, all as more particularly hereinafter set forth.

In the accompanying drawings, Figure 1 is a perspective view, representing my hinge as applied to a shutter. Fig. 2 is a perspective view of the hinge before being applied in position. Fig. 3 is a detached view of the parts. Fig. 4 is a section of an angle-plate, representing the countersunk openings in the same; and Fig. 5 is a plan view of the hinge.

In the manufacture of wrought and sheet iron hinges as heretofore generally practiced, the parts composing the hinge are welded together, which renders it a difficult task to form a strong and neat hinge, as flaws and other incidental defects occur in the iron of which such hinges are constructed; besides, the process of manufacture is very expensive when the parts are welded together, as they must be heated to a welding heat after being cut, a flux applied, and a very careful manipulation performed, requiring great skill.

In order to avoid the before-named defects and great expense of manufacture, and facilitate and cheapen production, and to furnish a strong and durable hinge, I proposed in my above-mentioned Letters Patent to construct my improved hinge with an elbow of wrought-

iron and the hinge-arm of cast-iron, the two being united together by means of rivets; but, owing to the fact that the cast-iron arm must be constructed of the best quality of metal and of considerable thickness, the cost of manufacture was found to be too great, and the hinge too heavy and clumsy.

In order, therefore, to furnish a hinge which shall combine strength, lightness, and durability, together with a reduced cost of manufacture, I propose to construct the two separate parts of wrought-iron—that is, forming the angle-plate which is attached to the shutter in one piece, and the arm which is attached to the fixed pintle in another piece, which is somewhat thicker than the elbow part, because of the greater strain to which it is subjected in supporting the weight of the blind. It would, of course, not be practicable to cut these two parts from a single plate of metal.

As represented in the drawings, A designates the angle-plate, which is formed of wrought-iron, and is secured to the corner of the shutter *a*, to brace or stay the same, and to support the hinge-arm B, which is likewise constructed of wrought-iron, and is somewhat thicker than the elbow portion, as shown. Said angle-plate is provided with countersunk openings on one side, or on both, to allow it to be reversed for use on right or left hand shutters. The hinge-arm B, which is made or formed in one piece, is cut or otherwise formed from sheet or wrought metal, with a pintle-socket, C, at its outer end, and a downwardly-projecting lip, C', at the other, at right angles to the arm, said lip overlapping a portion of the angle-plate for a short distance, in order to more securely fasten the two parts together. The said hinge-arm may be made straight or bent into an elbow form, according to the location of the shutter and description of the building to which it is applied, a straight arm being used when the shutter is not required to clear obstructions on the building, and an elbow-arm being resorted to when projections necessitate a certain outward throw of the shutter. The pintle-sockets may also be formed on different sides of the hinge-arm, as shown in the drawings, to enable it to be used with right and left hand shutters. The permanent

connection of the hinge arm to the angle-plate is effected by studs or rivets E, which may be formed integral with the hinge-arm, or they may be made separate; but in either case they are passed through holes in the angle-plate and then riveted or headed.

In order to more securely fasten the two parts of the hinge together I insert an ordinary screw, G, through the same into the wood-work of the shutter between the rivets, by which the parts are held together, said screw serving the double purpose of assisting to bind the parts together and securing the hinge to the shutter.

The hinge-arm B is constructed with a vertical flange, H, at its rear edge, (best seen in Fig. 3,) and the angle-iron, when riveted in place upon the hinge-arm, bears against the said flange, whereby the parts are greatly strengthened, inasmuch as the flange receives much of the strain, which would otherwise fall entirely upon the rivets.

What I claim, and desire to secure by Letters Patent, is--

1. A hinge composed of the wrought angle-plate A and the wrought-iron hinge-arm B, having the eye C and lip C', the said angle-plate and hinge arm being united together by rivets, substantially as and for the purpose set forth.

2. The wrought-iron hinge-arm B having the vertical flange H at its rear edge, as described, in combination with the wrought-iron angle arm A, the two being made in separate pieces and united by rivets, and the vertical flange, performing the function specified.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

BENJ. D. WASHBURN.

Witnesses:

H. J. EDWARDS.

EDWARD J. JONES.