

M. MORIARTY.

Improvement in Adjustable Howel for Coopers.

No. 129,419.

Patented July 16, 1872.

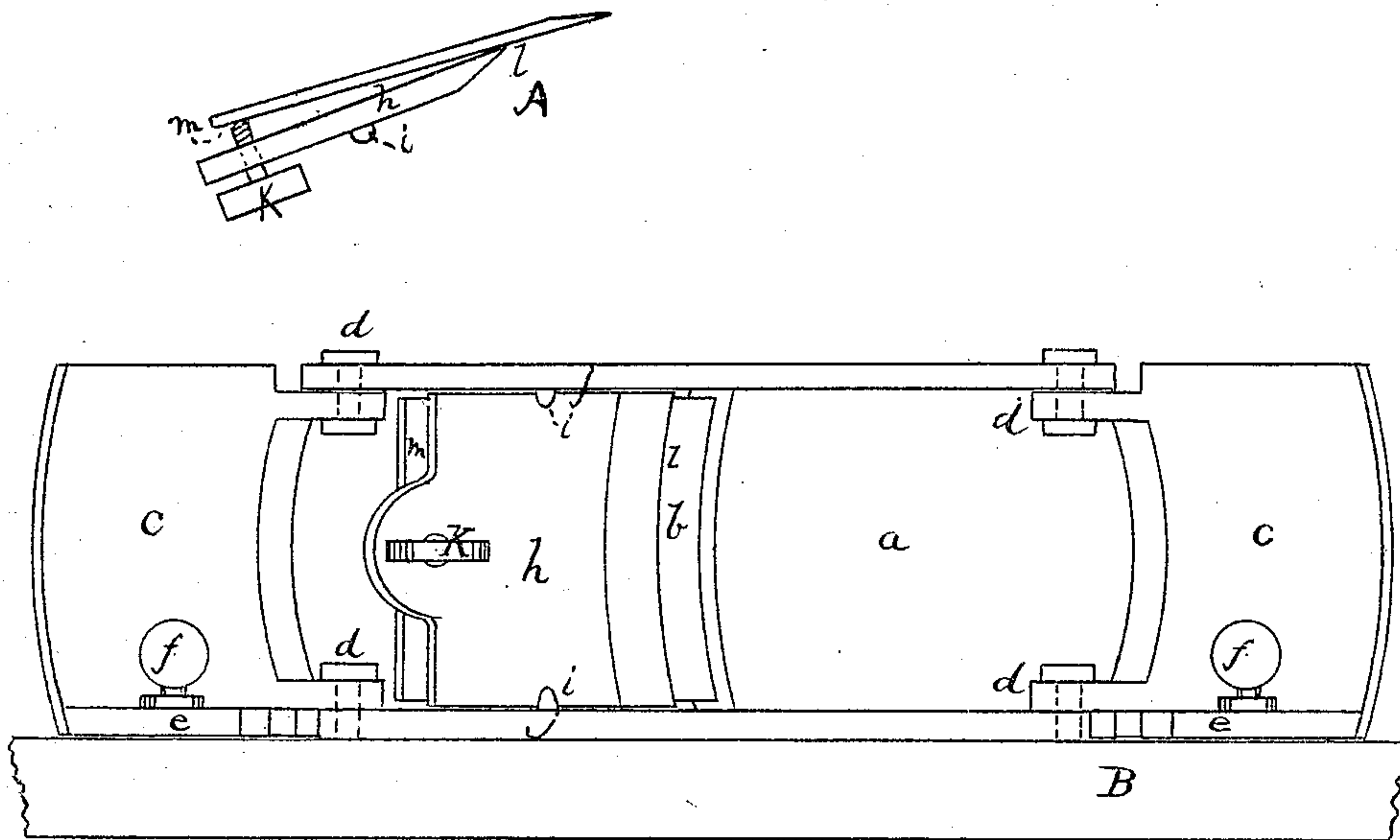


Fig. 2.

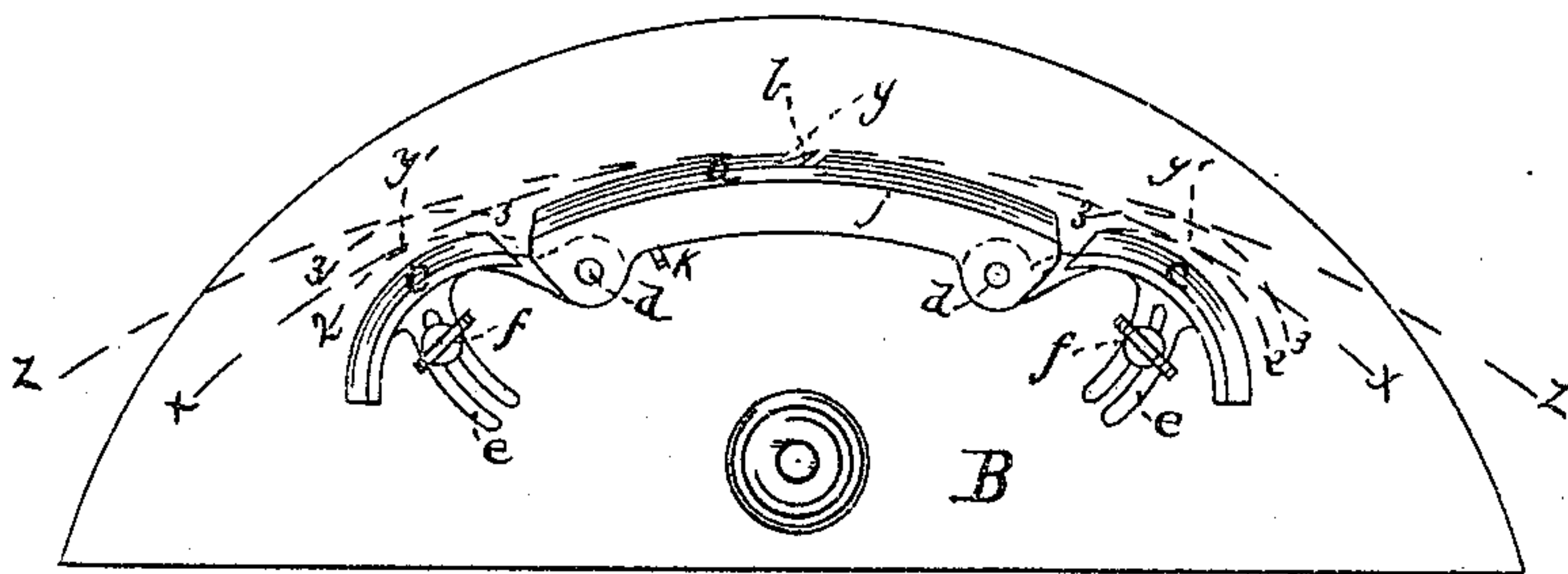


Fig. 1.

Witness  
 16 D Fuller  
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# UNITED STATES PATENT OFFICE.

MATHEW MORIARTY, OF BANGOR, MAINE.

## IMPROVEMENT IN ADJUSTABLE HOWELS FOR COOPERS.

Specification forming part of Letters Patent No. 129,419, dated July 16, 1872.

*To all whom it may concern:*

Be it known that I, MATHEW MORIARTY, of Bangor, in the county of Penobscot and State of Maine, have invented a new and useful Improved Adjustable Howel; and I hereby declare the following to be a full, clear, and exact description thereof which will enable others to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 shows a plan of my invention; Fig. 2, an elevation; A, a detail.

Same letters show like parts.

The object of my invention is to produce a howel which shall be adjustable to barrels, casks, &c., of various sizes. Reference to the drawing will explain the manner in which I effect my purpose.

B shows the board, of the ordinary construction, upon which the howel *a* is secured. This howel is circular upon its face both in longitudinal and transverse section, and is of a size to fit a small cask. It contains the cutting-knife *b*, secured in place in the usual manner or as hereafter described. At *c c* are wings, also having curved faces. These wings are so constructed as to be capable of being thrown forward so as to bear upon the inner circumference of the cask or barrel to be howeled out. As a convenient means of doing this, and of securing them in place when thrown forward, I hinge them at *d d* to the howel *a*, and at their bases provide projections *e e* having curved slots therein, through which pass set-screws *f f* into the board B. The curve on which these slots are made is struck from the hinges *d d*, so that when the wings are moved forward or back they move in the line of curvature of the slots, and may, by tightening the set-screws, be fixed in any position.

The operation is as follows: Suppose the barrel to be howeled out to be of the size indicated by the line *x x*, the howel *a* is placed so as to touch the circumference, as at *y*. The wings *c c* are then brought forward, as shown by the dotted lines 2 2, and secured by the screws *f f*, and, bearing on the circumference at *y' y'*, the effect is the same as if the howel were of the size usually employed in barrels of the given circumference. If the barrel is larger, as shown by the line *z z*, the wings are advanced to the position 3 3 and secured as before, with a like result. Thus the howel is adapted to work of various sizes, and when adjusted, as shown, the wings effectually keep the knife from running into and gouging out the wood to more than the required depth. The wings *c c* may be arranged in various ways without affecting the result materially.

My method of attaching the cutting-knife *b* is illustrated in the detail A. It is set into the howel as usual, and the "chip" *h* is then inserted under the teats *i i*, attached to flanges *j j* at the upper and lower edges of the howel. A set-screw, *k*, passes through the "chip" and bears upon the end *m* of the knife. By tightening this screw the "chip," acting upon the teats *i i* as a fulcrum, presses down upon the knife at the end *l* while the screw bears upon it at the end *m*, thus securing it at both ends, while, by loosening the screw, it can be readily removed.

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

The within-described adjustable howel, having its parts constructed and arranged substantially as and for the purpose specified.

Witnesses: MATHEW MORIARTY.

WM. FRANKLIN SEAVEY,  
J. Y. RICKER.