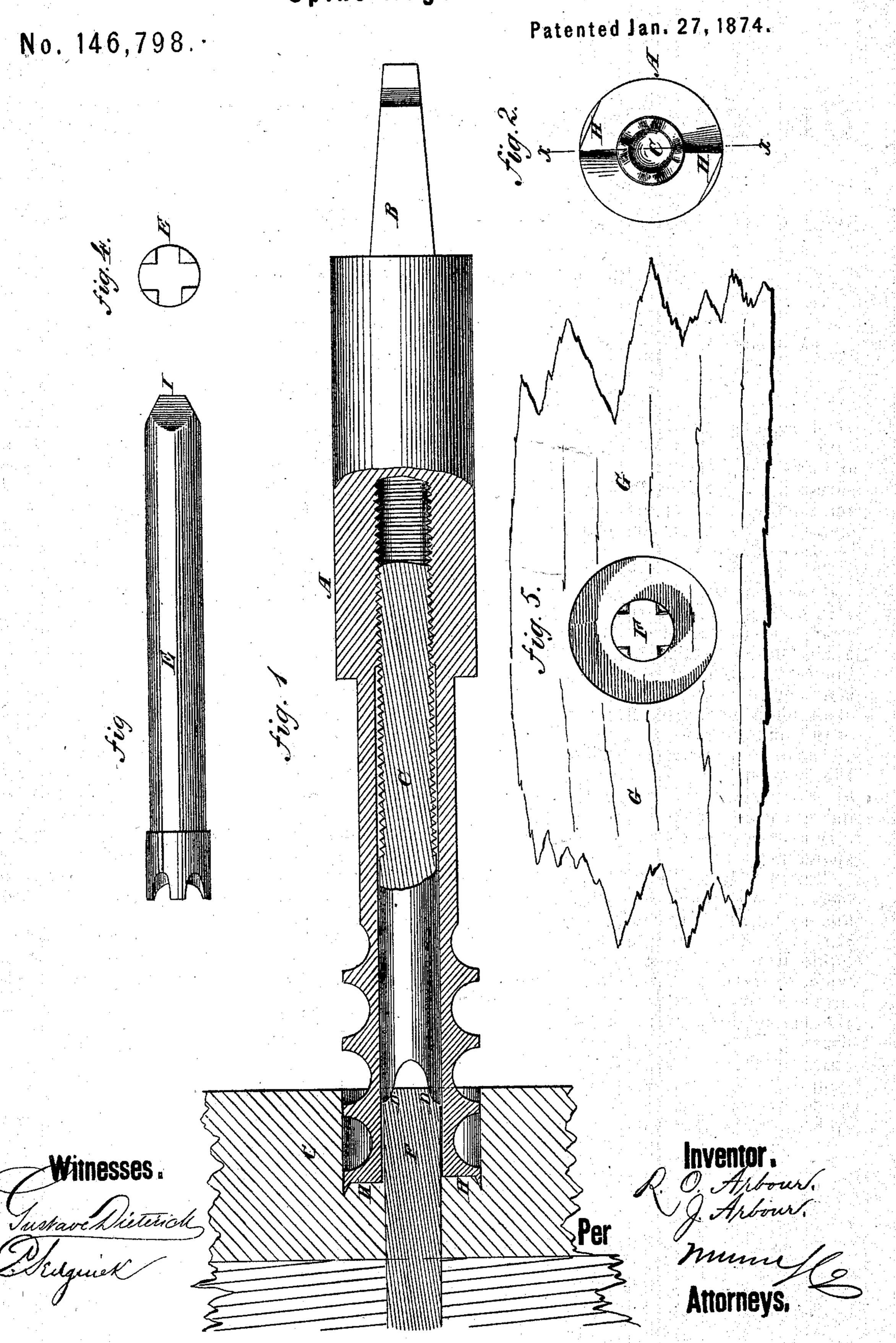
R. O. & J. ARBOUR.

Spike-Augers.



## UNITED STATES PATENT OFFICE.

ROLAND O. ARBOUR AND JOSEPH ARBOUR, OF BATON ROUGE, LOUISIANA.

## IMPROVEMENT IN SPIKE-AUGERS.

Specification forming part of Letters Patent No. 146,798, dated January 27, 1874; application filed September 20, 1873.

To all whom it may concern:

Be it known that we, Roland O. Arbour and Joseph Arbour, of Baton Rouge, in the parish of East Baton Rouge, State of Louisiana, have invented a new and useful Improvement in Spike-Auger, of which the following is a specification:

The invention will first be fully described,

and then pointed out in the claim.

In the annexed drawing, Figure 1 is mainly a longitudinal section of the auger and augerguide, (shown as applied to the plank,) the section being taken on the line  $\dot{x}$   $\dot{x}$  of Fig. 2. Fig. 2 is an end view of the auger. Fig. 3 is a view of an instrument used for punching the head of the spike to make a foot-hold for the guide, and also for extracting the guide from the auger; Fig. 4, an end view of the punch end of Fig. 3. Fig. 5 shows the end of the spike (with the indentations made) surrounded by the auger.

Similar letters of reference indicate corre-

sponding parts.

A is the auger, which is fitted to a brace by means of the shank B. In the center of the auger a longitudinal hole is bored, in the upper part of which is cut a screw-thread. C is the guide, it being a straight bar of steel or iron, which is made to nicely fit the hole, and is provided with a screw-thread to engage with the female screw of the auger, as seen in the drawing. The outer end of this guide is provided with points D, which engage with indentations in the head of the spike previously made with the punch E. F represents the spike, and G the plank through which the

spike has been driven. As seen in the drawing, the auger has penetrated about half-way through the plank. It will be seen that as the auger is revolved the guide C remains stationary, and the auger will screw into it and cut an annular hole around the spike. HH are the cutting-lips of the auger. The points D of the guide being embedded in the head of the spike, the auger is pressed against the wood sufficiently to keep the guide in place. When the auger has passed through the plank it is removed, and then the guide is hidden in the auger, and is extracted by applying the end I of the punch, Fig. 3, which acts as a plug-wrench on the spurs D, and turns the guide round and unscrews it, when the operation may be repeated on another spike, and so on until the plank is released. This auger may be made of any size, so as to suit any-sized spikes, and is a most ingenious as well as expeditions way to release the planks from a vessel in case of repairs or for other purposes.

Having thus described our invention, we claim as new and desire to secure by Letters

Patent—

The combination, with the hollow auger, of the guide C, when all the parts are constructed, arranged, and operated in the manner and for the purpose specified.

ROLAND OCTAVE ARBOUR.

JOSEPH ARBOUR.

Witnesses:

CHAS. G. PAGES, JAMES DE GREY.