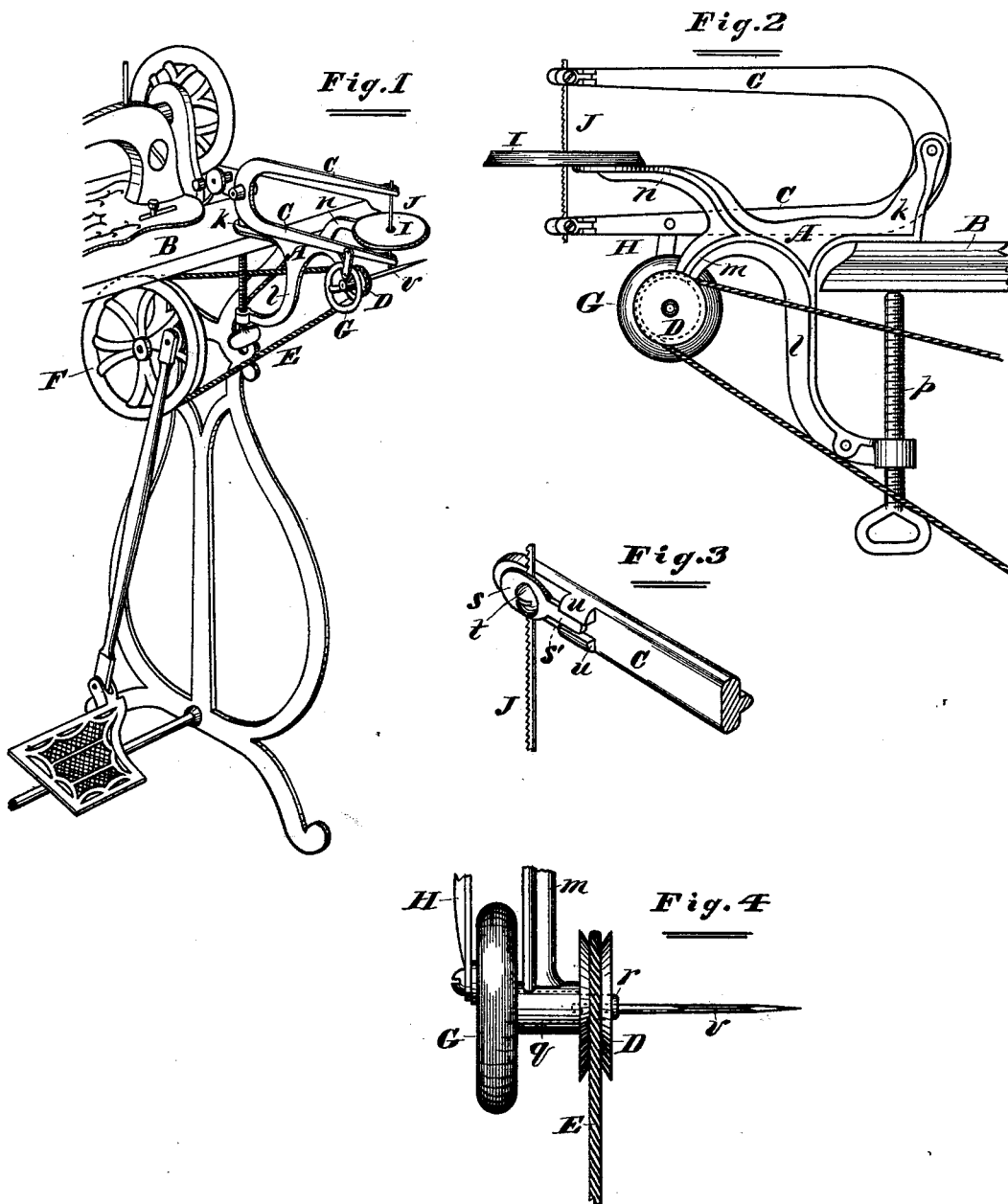


C. A. DEARBORN.  
Scroll-Saws.

No. 220,705.

Patented Oct. 21, 1879.



*Attest:*

*W. L. Baker*

*C. B. Baker*

*INVENTOR:*

*Charles A. Dearborn*

*By R. C. Dyrenforth*

*Attorney.*

# UNITED STATES PATENT OFFICE.

CHARLES A. DEARBORN, OF CHICAGO, ILLINOIS, ASSIGNOR TO CHARLES E. TUERK, OF SAME PLACE.

## IMPROVEMENT IN SCROLL-SAWS.

Specification forming part of Letters Patent No. **220,705**, dated October 21, 1879; application filed February 12, 1879.

*To all whom it may concern:*

Be it known that I, CHARLES A. DEARBORN, of the city of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Sorrento or Scroll Saws; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, of which—

Figure 1 is a perspective view of my device attached to a sewing-machine; Fig. 2, a side elevation of the same; Fig. 3, a perspective view of the clamp for securing the saw-blade to the arms, and Fig. 4 a detail view.

My invention relates to Sorrento or scroll saws, such as are employed for the purpose of sawing out ornamental and fantastic designs; and my object is to construct such a saw in the simplest and cheapest form possible, and yet have it capable of executing the finest and most complicated work with the utmost speed and exactness.

To the above end my invention consists, first, in employing a small jig-saw operated by a crank-wheel and pitman, and pivoted to a frame or bracket which is provided with branching arms, one of which carries the pulley and the crank-wheel above referred to, in the shaft of which a drill is inserted, and another a disk through which the saw passes, the said bracket being further provided with a clamping contrivance especially adapted for attaching it to the table of an ordinary sewing-machine, whereby the saw is operated by the driving-wheel and treadle of the said machine; and it consists, secondly, in the peculiar clamping device which I employ for adjusting the saw to the reciprocating arms, and in certain other details of the construction, all as hereinafter more fully set forth.

Referring to the drawings, A is the bracket, comprising four branching arms, *k*, *l*, *m*, and *n*. The arm *k* rests upon the table B of the sewing-machine, and the arm *l* curves backward underneath the same, a clamp-screw, *p*, to secure the whole device firmly to the said table, passing upward through its rear extremity

and bearing against the under side of the table, as shown.

Pivoted to the upper end of the arm *k*, as represented, is the U-shaped frame of the jig-saw, comprising the arms C C.

The arm *m* of the bracket projects downward and forward, and terminates in a hollow journal, *q*, within which revolves the shaft *r*, carrying at one end the pulley-wheel D, connected by a belt, E, to the driving-wheel F of the sewing-machine, and at the other end the crank-wheel G, connected by a pitman, H, to the lower arm C of the saw-frame.

The arm *n* of the bracket projects upward and forward, and carries the wooden disk I, which serves as the rest for the material sawed.

The saw J is connected to the extremity of each arm C of the frame and passes through an opening in the center of the disk I.

It is of course essential that the saw J be made easily detachable from the arms C C, and at the same time capable of very firm adjustment. I effect this by means of the clamping device most clearly represented in Fig. 3, which consists of a plate, *s*, secured to each arm C of the saw-frame by means of a screw, *t*. The plate *s* is provided with an arm, *s'*, which rests within guides *u*, formed by casting short longitudinal ribs upon the arm C, thus preventing the plate from slipping around as the screw is turned. The saw is clamped in place between the plate *s* and the arm C, as shown.

To secure a proper tension to the saw-blade, the ends of the arms C C, which I make of malleable iron to give the requisite elasticity, must be pressed together somewhat before the second clamping-plate is tightened.

A drill, *v*, sits within a socket in the extremity of the shaft *r*, and its purpose is to puncture the scroll or sheet of wood, or gutta-percha, or whatever the material may be, at any desired point or points for the insertion of the saw.

My device may be attached to any sewing-machine without any possibility of injury thereto, only the treadle and driving-wheel being brought into requisition, allowing the

rest of the mechanism to be disconnected. While, however, my saw is designed with an especial view to being attached to a sewing-machine, it is obvious that it may easily be connected to any other driving-power.

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

1. The scroll-sawing device consisting of the U-shaped frame carrying the saw J, the bracket A, comprising the arm *k*, to which the said frame is pivoted, arm *l*, with the clamp-screw *p*, arm *m*, terminating in a journal, *q*, and carrying the shaft *r*, upon which are the belt-wheel D, for connection with suitable driving-power, and crank-wheel G, connected to the lower arm C of the frame by a pitman, H, and the arm *n*, carrying the disk I, substantially as described.

2. In combination with the table, driving-wheel, and treadle of a sewing-machine, the

bracket A, comprising the arms *k* and *l*, with the clamp-screw *p*, for attaching the same to the table B, arm *m*, carrying the pulley-wheel D, connected with the said driving-wheel by a belt, E, and crank-wheel G, operating, by means of a pitman, H, the U-shaped frame carrying the saw J, said frame being pivoted at its rear end to the arm *k*, and the arm *n*, carrying the disk I, substantially as described.

3. The device for attaching the saw to the arms C of the frame, consisting of the clamping-plate *s*, secured to the arm C by means of a screw, *t*, and prolonged into an arm, *s'*, fitting between guides *u* upon the arm C, substantially as described.

CHARLES A. DEARBORN.

In presence of—

ERNEST CUMMING,  
JAMES L. GILLINGHAM.