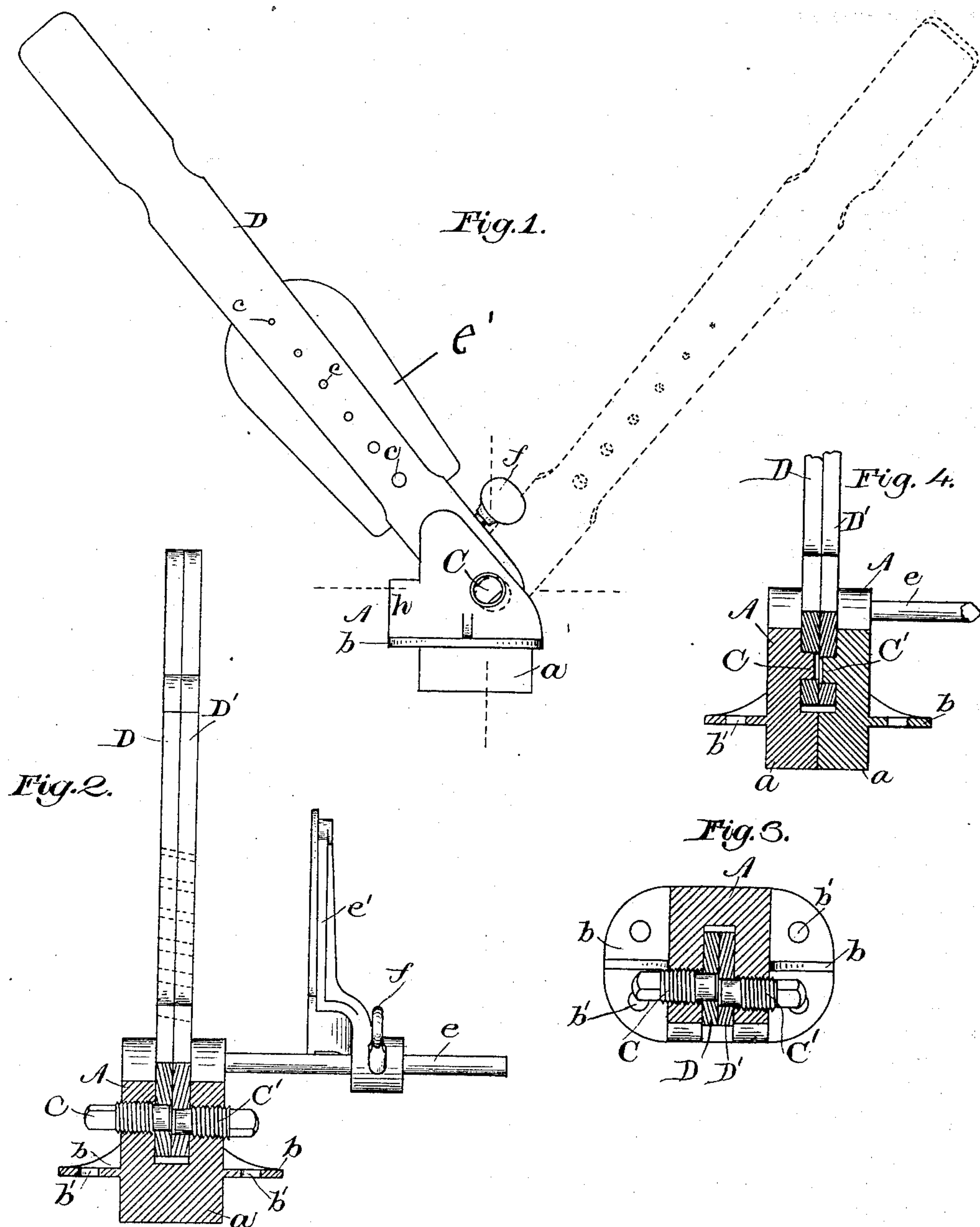


(No Model.)

W. H. FLINN.
TOOL FOR CUTTING WIRE.

No. 327,153.

Patented Sept. 29, 1885.



Witnesses

Jos. P. Livermore
W. H. Sigston.

Inventor

William H. Flinn
by Crosby & Gregory
Attys.

UNITED STATES PATENT OFFICE.

WILLIAM HENRY FLINN, OF NASHUA, NEW HAMPSHIRE.

TOOL FOR CUTTING WIRE.

SPECIFICATION forming part of Letters Patent No. 327,153, dated September 29, 1885.

Application filed August 7, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. FLINN, of Nashua, county of Hillsborough, State of New Hampshire, have invented an Improvement in Tools for Cutting Wire, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to provide a simple and inexpensive tool for cutting wire, which may be readily held in a vise or secured to a table or bench, so as to be operated; and it consists, primarily, of a pair of eccentrically-pivoted levers parallel with each other, and provided each with a series of holes or orifices, each series registering with the other when the levers are in a given position, so that when said levers are moved together or in unison on or about their pivots into a second position the orifices will be moved one series more or less past the other to sever a wire inserted in one pair of the said orifices. Further, a stop-gage is provided to be used in connection with the levers, to gage or limit the length of wire to be cut, substantially as hereinafter more fully described, and particularly pointed out in the claims.

Figure 1 shows in side elevation my improved tool for cutting wire, with the eccentrically-pivoted levers in position to receive a wire to be severed, and showing in dotted lines the position of said levers after they have been moved to sever the wire. Fig. 2 is a front elevation, partly in section, to show the position of the bosses upon which the levers are eccentrically pivoted; Fig. 3, a sectional detail to more clearly illustrate some of the parts, and Fig. 4 a modification.

The block or holder A may be provided with a reduced portion, *a*, to facilitate its being held in a vise, as well as to enter a socket or recess in a suitable support or bench, and in the latter case the ears *b*, having the screw-receiving orifices *b'*, may be used to enable the block to be firmly fastened to such support.

The block is provided with a pair of uprights or projections having bosses or studs C C', eccentrically arranged therein to pivotally support and retain between the projections two levers, D D', of required size and strength, each lever being provided with a series of holes, *c*, preferably of varying diameters or

sizes, said series of orifices registering with each other when the levers are in their full-line position in the block A, but passing one by the other when the eccentrically-pivoted levers are moved together in the arc of a circle from their full into their dotted line position, so that a wire previously inserted in one pair of holes of the two levers will be severed just as the holes in the two levers pass each other in the movement of the levers.

As stated, the levers are moved in unison from one position to another, or from one angle with relation to the block to another, and in so moving one series of holes is carried more or less past the other in the direction of the length of said levers, so that the strain upon the levers caused by the cutting of the wire is mostly borne by their pivots, and there occurs little or no side or lateral strain to throw the levers apart, which would in such case have to be resisted by the hand of the operator in preserving the levers in parallel position.

In the present instance I have shown the bosses or pivotal studs for the support of the eccentrically-pivoted levers as formed on the ends of a pair of screw-bolts, G, which enter screw-threaded orifices in the uprights, so that the bosses project beyond the opposite inner faces of said uprights.

If desired, however, the bosses may be formed on the levers and be made to enter sockets in the block, or they may be formed on the block and enter the eyes in the levers, as in Fig. 4. In both cases the block itself would be made in parts or halves and firmly held together after the lever had been applied therein by means of screw-bolts, substantially after the manner shown in Fig. 4.

One of the uprights is provided with laterally-extended rod or arm *e*, to receive a sliding adjustable gage, *e'*, held thereto in any given position by means of the set-screw *f*, as shown, the purpose of said gage being to arrest a wire at any desired point after it has been passed through a pair of the registering-holes in the levers, and readily enable wire of given lengths to be severed by the levers.

As set forth in my Patent No. 65,557, dated June 11, 1867, the holes are cut obliquely in the levers, to compensate for the inclination of the wire due to the impact of the cutters upon

its opposite sides when the wire fits loosely in the holes.

The holes through the levers D D' are made oblique or angular, as best shown by dotted lines, Fig. 1, such direction of the holes causing the levers to crowd together under strain of severing a wire rather than to separate, as would be the case if the holes were exactly at right angles to the length of the levers.

The bosses C C' may be placed more or less out of line, according to the size of the levers and the size of the rods to be cut by them.

I claim—

1. An improved rod or wire cutter consisting, essentially, of a block or holder and a pair of levers eccentrically pivoted therein, each lever being provided with a series of holes, which register when the levers are in a given position with relation to the holder, and are thrown out of alignment when both levers are moved, substantially as described.

2. The block or holder and a pair of levers parallel with each other having faces in contact and eccentrically pivoted in the holder, each lever being provided with a series of holes, which register with each other when the levers are in a given position with relation to the

holder, combined with an adjustable gage attached to the holder and adapted to arrest a wire when projected through one pair of the two series of holes, substantially as set forth.

3. An improved rod or wire cutter consisting, essentially, of the block provided with the uprights, and screw-bolts having the bosses projecting toward each other and beyond the inner walls of said uprights, and the pair of levers parallel with each other having faces in contact and eccentrically pivoted on the bosses of the removable screw-bolts, each lever being provided with a series of holes of different diameter, the said series registering with each other when the levers are in a given position with relation to the block, and being thrown out of alignment when the levers are moved in unison on their pivots, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM HENRY FLINN.

Witnesses:

OREN E. BURNHAM,
W. A. FARLEY.