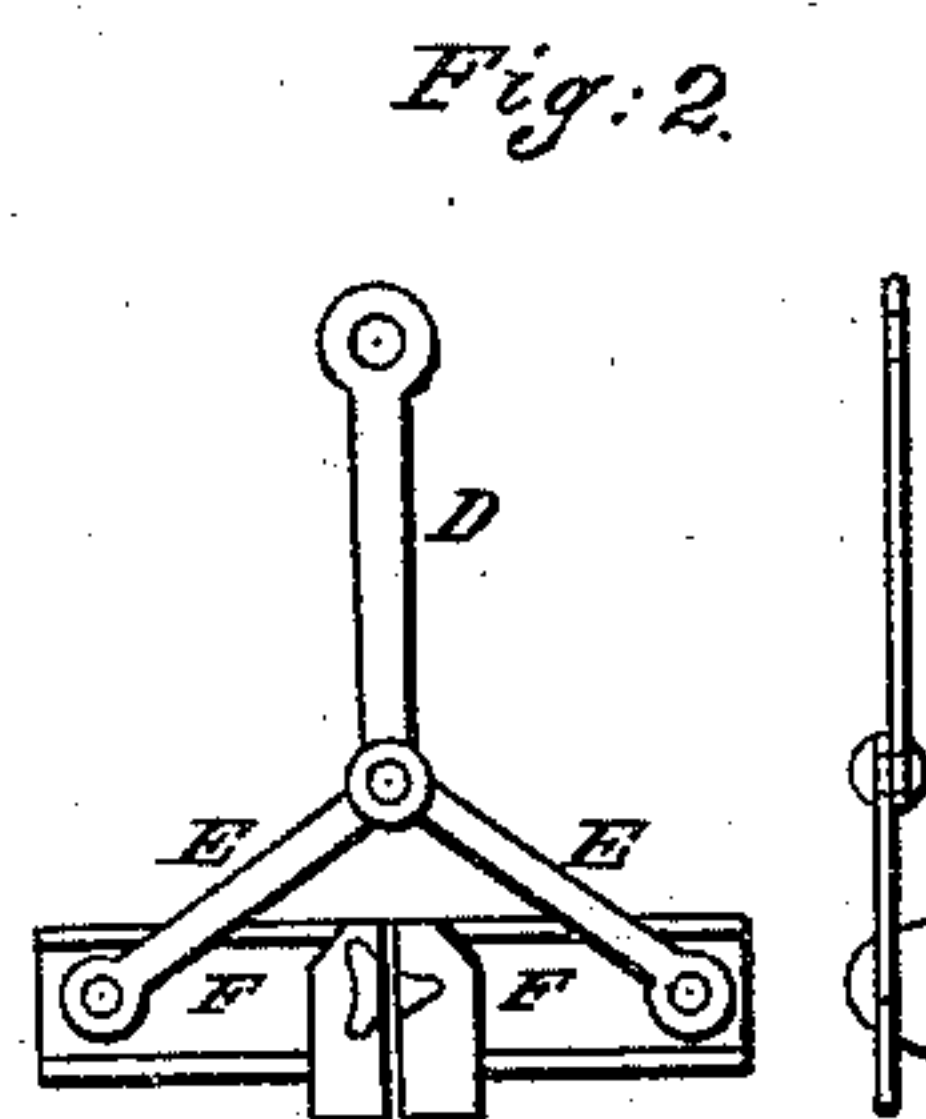
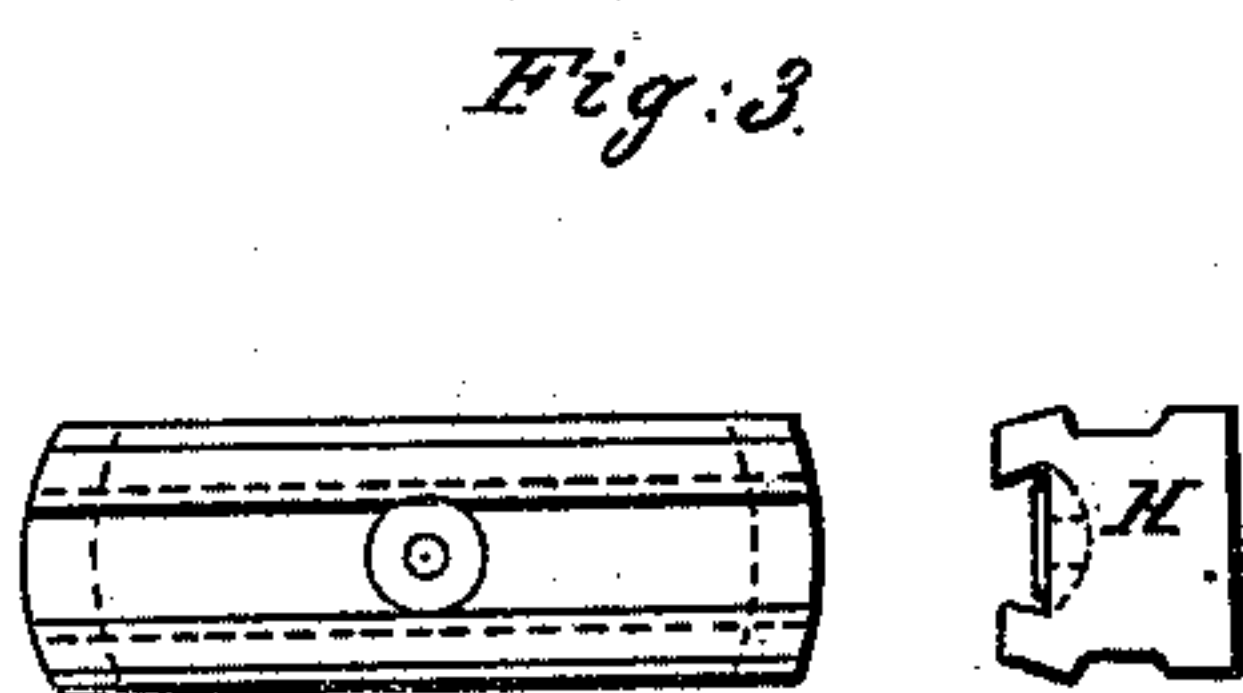
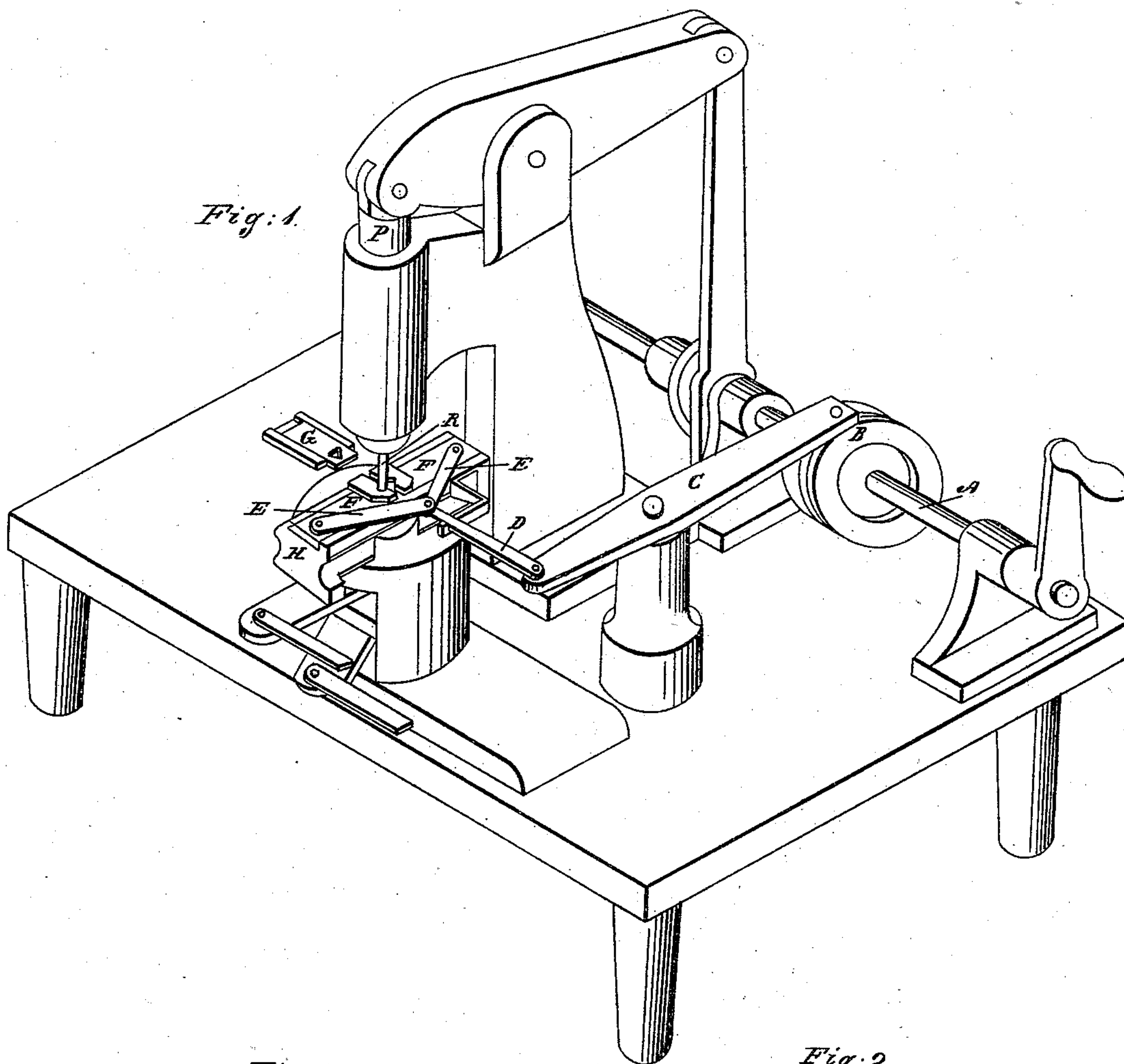


E. H. PERRY.
Machine for Making Chains.

No. 21,362.

Patented Aug. 31, 1858.



UNITED STATES PATENT OFFICE.

EDWIN H. PERRY, OF PROVIDENCE, RHODE ISLAND.

MACHINE FOR MAKING CHAIN.

Specification of Letters Patent No. 21,362, dated August 31, 1858.

To all whom it may concern:

Be it known that I, EDWIN H. PERRY, of the city of Providence, in the county of Providence and State of Rhode Island, have
5 invented certain new and useful Improvements in Machines for Making Chain from Sheet Metal; and I do hereby declare that the following specification, taken in connection with the drawings, is a full, clear, and
10 exact description thereof.

The same letters indicate like parts in all the drawings, Figure 1 being a perspective view of so much of a chain machine as is sufficient to show the part to which my improvement relates, and the connections by
15 which it is operated. Fig. 2 is a top and side view of a divided die and Fig. 3 is a top and end view of a guide frame in which the die is worked.

20 By reference to the specifications and drawing attached to the Letters Patent granted to me on the 20th day of July 1858 it will be observed that in the method of making chain by the machine therein described each link before it is deposited in the
25 forming tube is struck up in a die and then lifted out of it by the combination of devices which is the subject of the first claim in that patent.

30 My present invention has reference to an improved means for removing the link from the die after it has been struck up and for depositing it in the next position necessary in the formation of the chain.

35 A, is the main shaft of the machine to which the grooved cam B, is attached whereby a reciprocating motion at the proper moment of time is communicated through the connecting lever C to the jointed connection
40 D (such portions only of the whole machine being shown as are necessary to make the nature of my improvement and its mode of operation understood).

45 Instead of a solid die of the ordinary construction into which the plunger or former P, shall descend and give form to the body of the link as described in the specification above referred to, I use a die which is capable not only of performing the office of an
50 ordinary die but also of permitting the link after it has been struck up, to be passed through it for the purpose of being deposited

in the forming tube, thereby dispensing with the necessity of any contrivance for lifting the link out of the die, while at the same
55 time all the advantages in the use of a solid die are preserved.

I make a die of the desired form but in two halves—as F, F, one half of the die being at the end of each die plate, F, F, so
60 that the die shall be perfect only when the two ends of the said plates are in close contact. These die plates are so arranged in the guide block H that by means of the jointed connections E, E operated by the
65 cam B through the connection C,—or by any equivalent device—the halves of the die may be made to separate from each other any required distance, and be again brought
70 into close contact at the proper moment.

In the process of making the chain the operation of passing each link after it has been struck up in the die is as follows: The blank link having been transported in the
75 carrier G and placed over the die by any method which may be employed and the carrier withdrawn, the action of the cam B or its equivalent causes the ends of the die plates F, F, to be in close contact and to
80 continue so while the plunger, P, descends and strikes up the body of the link. When this is accomplished the cam B in the course of its revolution operates lever C in the direction which will cause the die plates F, F
85 to open. All support to the link being thus withdrawn it falls and the plunger following it, fixes it into the end of the tube wherein the chain is formed. As the plunger is
90 withdrawn the die plates are brought together by the action of the cam which opened them in season to receive the next blank from the carrier.

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

The combination of a separating die F F
95 with the tube wherein the chain is formed, for the purpose of permitting each link of the chain after it has been struck into form to be transmitted to the tube, substantially as described.

EDWIN H. PERRY.

Witnesses:

JAMES M. RIPLEY,
JOHN GARTLAND.