

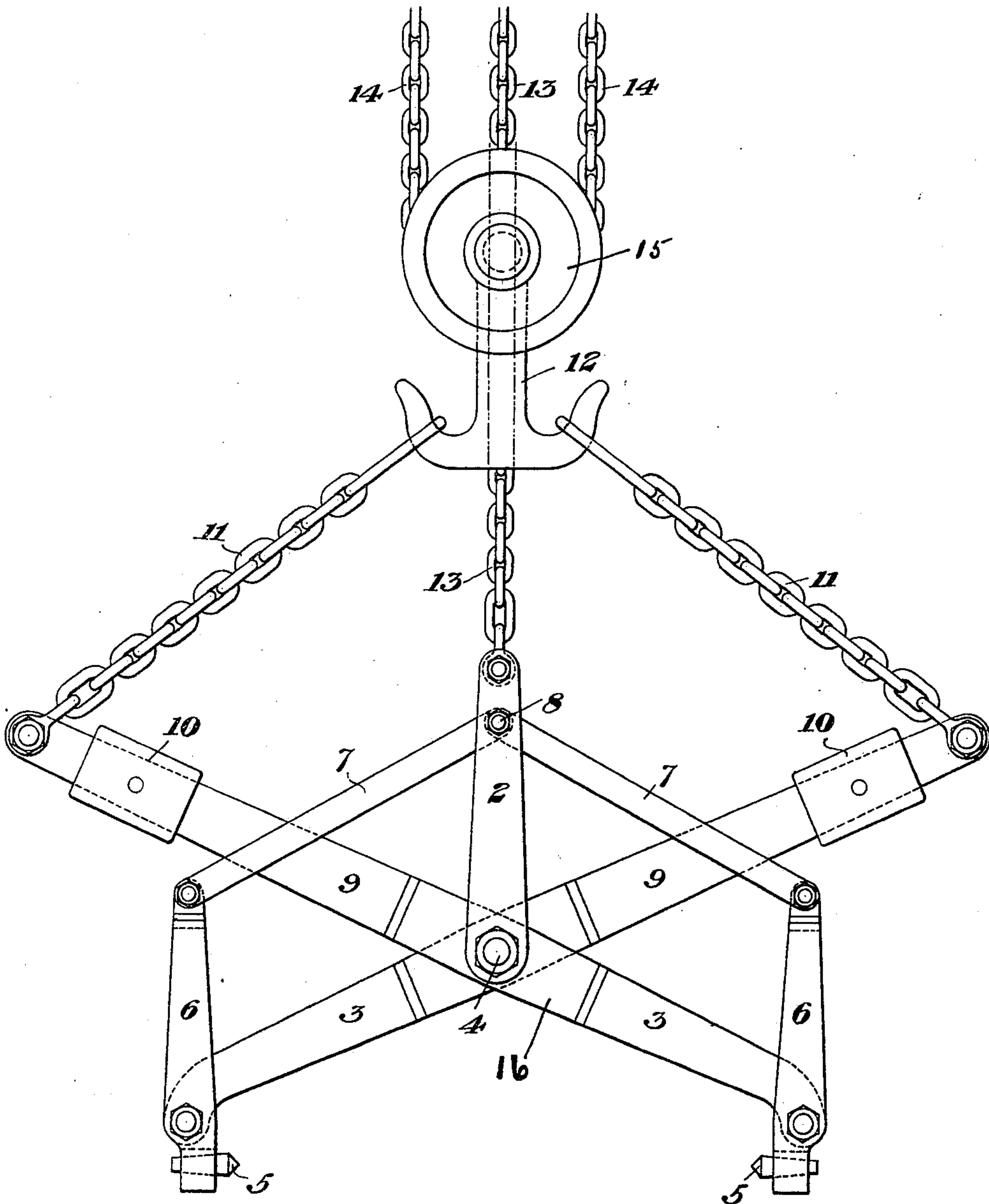
No. 681,518.

Patented Aug. 27, 1901.

R. H. STEVENS.  
TONGS.

(Application filed Apr. 13, 1901.)

(No Model.)



WITNESSES

Warren W. Swartz  
A. M. Corwin

INVENTOR

Richard H. Stevens  
by Balcanes & Symes  
his attys.

# UNITED STATES PATENT OFFICE.

RICHARD H. STEVENS, OF BRADDOCK, PENNSYLVANIA.

## TONGS.

SPECIFICATION forming part of Letters Patent No. 681,518, dated August 27, 1901.

Application filed April 13, 1901. Serial No. 55,719. (No model.)

*To all whom it may concern:*

Be it known that I, RICHARD H. STEVENS, of Braddock, Allegheny county, Pennsylvania, have invented a new and useful Tongs, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming a part of this specification, in which—

The figure is a side elevation showing one form of tongs constructed in accordance with my invention.

Heretofore in the handling of slabs, ingots, and other pieces of metal tongs have been used with pointed bits secured in their jaws and adapted to engage the metal piece, and with such tongs where ingots or slabs of different thicknesses and sizes are being handled it has been necessary to use a number of sets of tongs, each set having only a small range in its capacity for handling metal by reason of the fact that beyond certain sizes the bits as they swing in in a curved path will not properly bite upon the piece.

My invention is designed to overcome this difficulty and provide tongs which can be used upon widely-different sizes and thicknesses of metal; and to that end it consists in combining with the tong-levers other levers pivoted to them and provided with bits and providing actuating connections for the bit-levers, which are independent of the tong-levers.

In the drawing, in which I show a preferred form of my invention, 2 represents a central tong support or carrier, to the lower end of which are pivoted the tong-levers 3 3. In order to pass each other properly at the common pivotal point, I bend these levers laterally in opposite directions, as indicated at 16 in the figure, the pivot-bolt 4 extending through these bent portions. The pointed bits 5 5 are removably secured in the lower ends of forked levers 6 6, which are pivotally mounted at the lower ends of the tong-levers, and the upper ends of the levers 6 6 are connected by links 7 to a pivot-pin 8 upon the support 2. The links 7 7 are shown as being of substantially the same length as the lower arms of the tong-levers, so that when the levers are swung a parallel motion re-

sults, the levers 6 6 moving toward or from each other in parallel lines. I have shown the upper tong-levers 9 9 as provided with adjustable counterweights 10 for opening the tongs when released and have shown chains 11 connected to these lever-arms and extending to the double operating-hook 12, the stem of which is hollow to receive the chain 13, which supports the tongs. The operating-chains 14 extend over pulleys or sprocket-wheels 15, mounted upon stub-shafts secured at either side of the double hook-shank. In operating these tongs the chains are wound up or paid out in the usual manner to raise or lower the tongs and to swing the jaws in or out, and when the jaws are so moved the levers 6, carrying the bits, are swung at the same time, so that the bits are moved in and out in substantially parallel lines.

The advantages of my invention flow from the pivoting of the bits to the tong-levers, together with means for swinging the bits when the tong-levers are swung in or out. This enables the bits to properly engage the metal, no matter what the size of the piece, provided it is within the limits of the capacity of the tongs.

The mechanism for swinging the bits may be varied widely, and they may be swung through different paths and at different rates without departing from my invention.

I claim—

1. The combination with tong-levers, of levers pivoted to said tong-levers and provided with bits, and actuating connections for the bit-levers which are independent of the tong-levers; substantially as described.

2. The combination with a tong-support and tong-levers pivoted thereto, of levers pivoted to the tong-levers, bits carried on the pivoted levers, and links connecting the upper portions of the bit-levers to the tong-support; substantially as described.

In testimony whereof I have hereunto set my hand.

RICHARD H. STEVENS.

Witnesses:

H. M. CORWIN,

L. M. REDMAN.