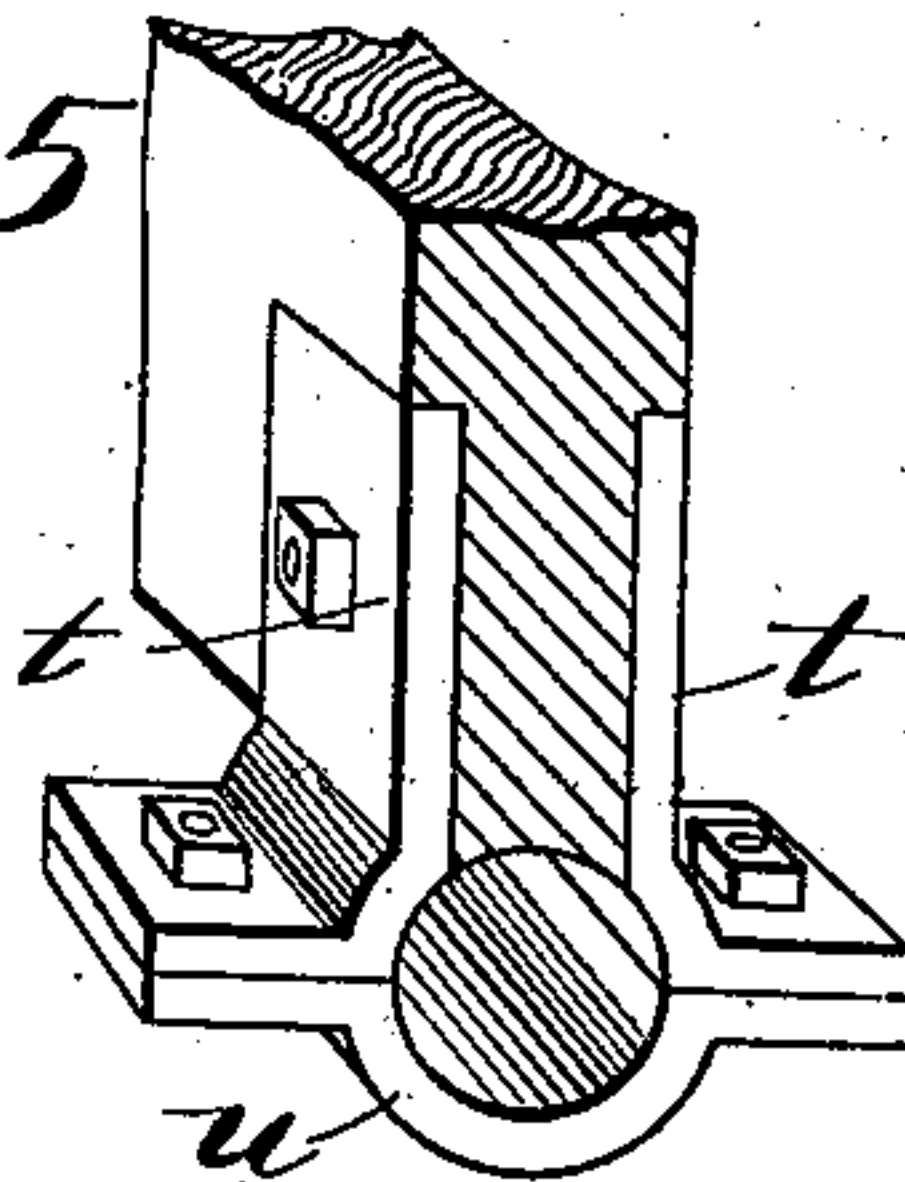
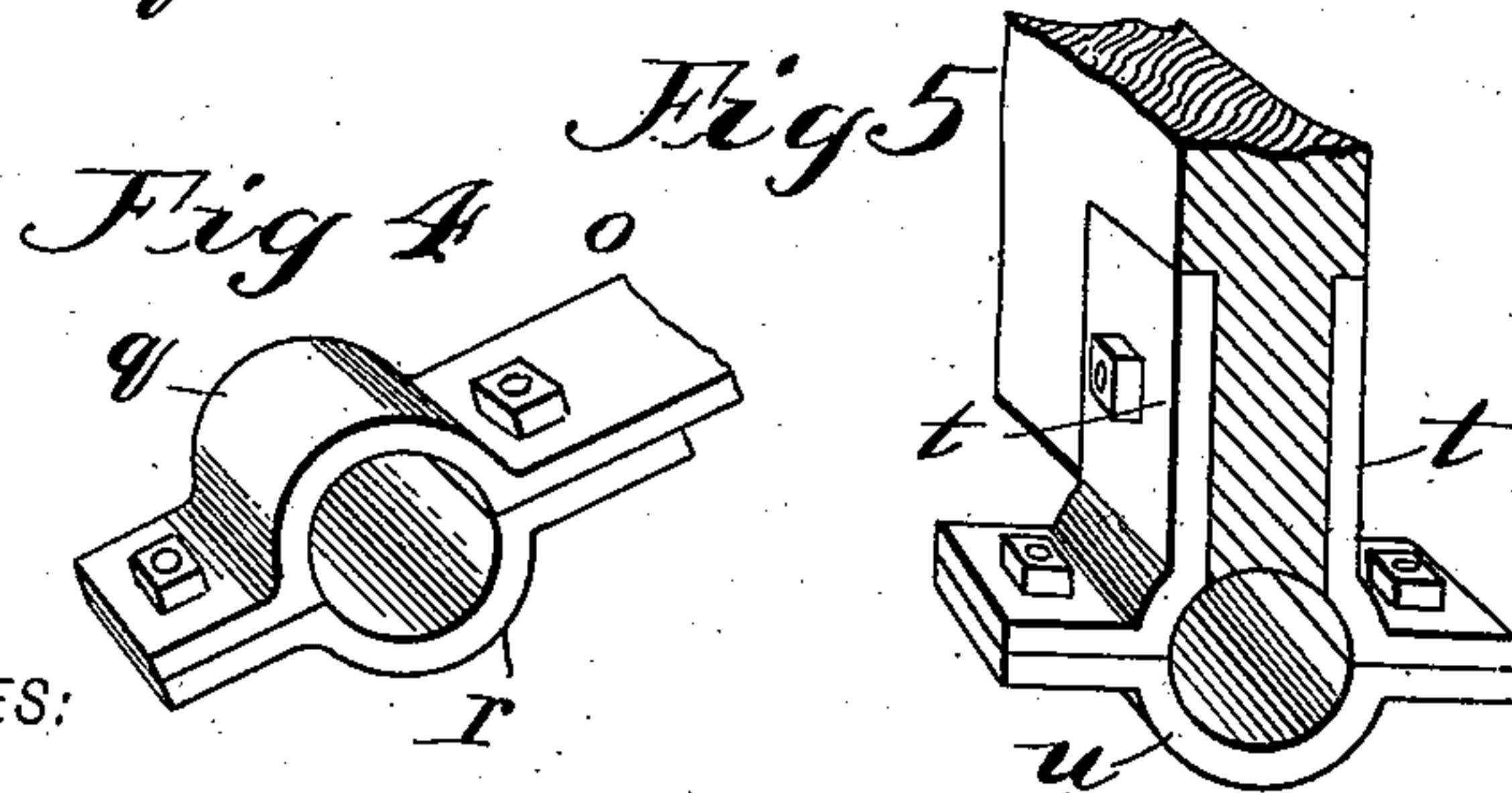
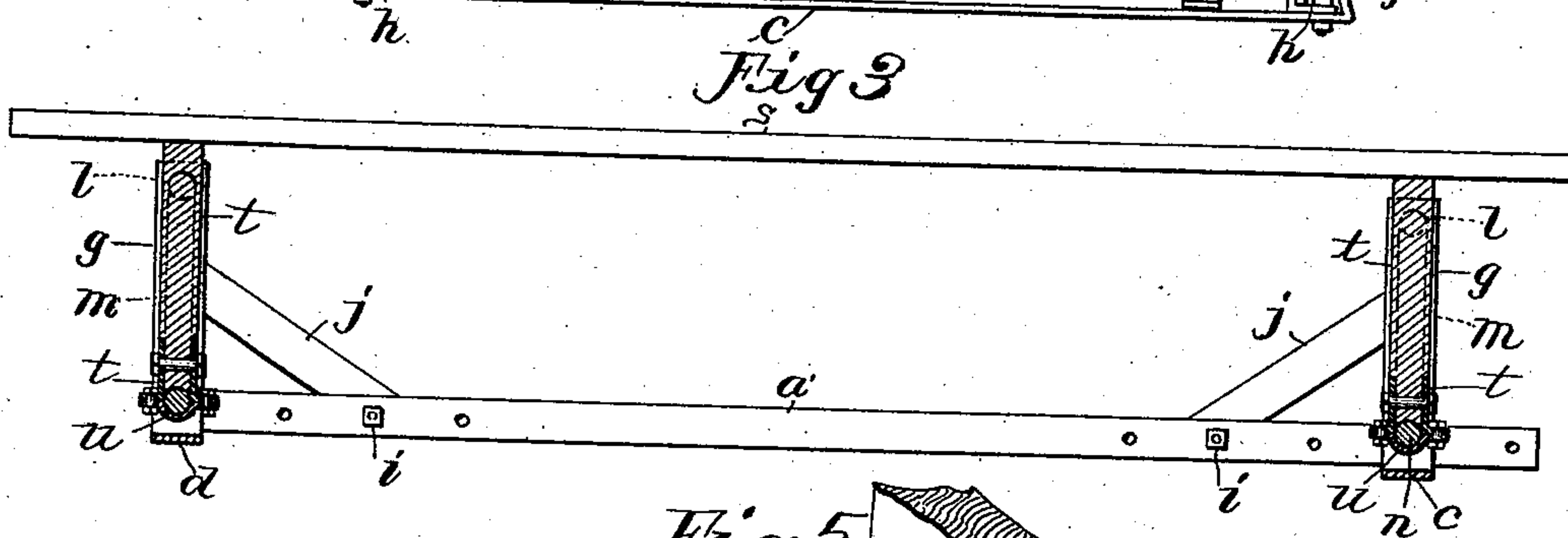
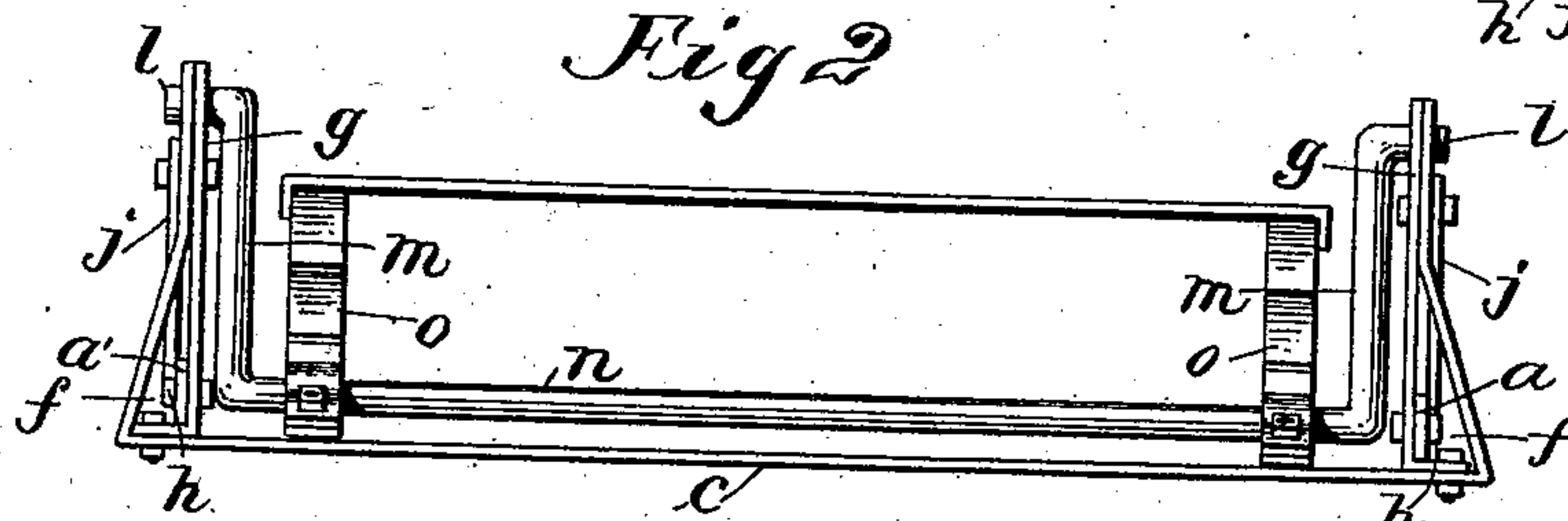
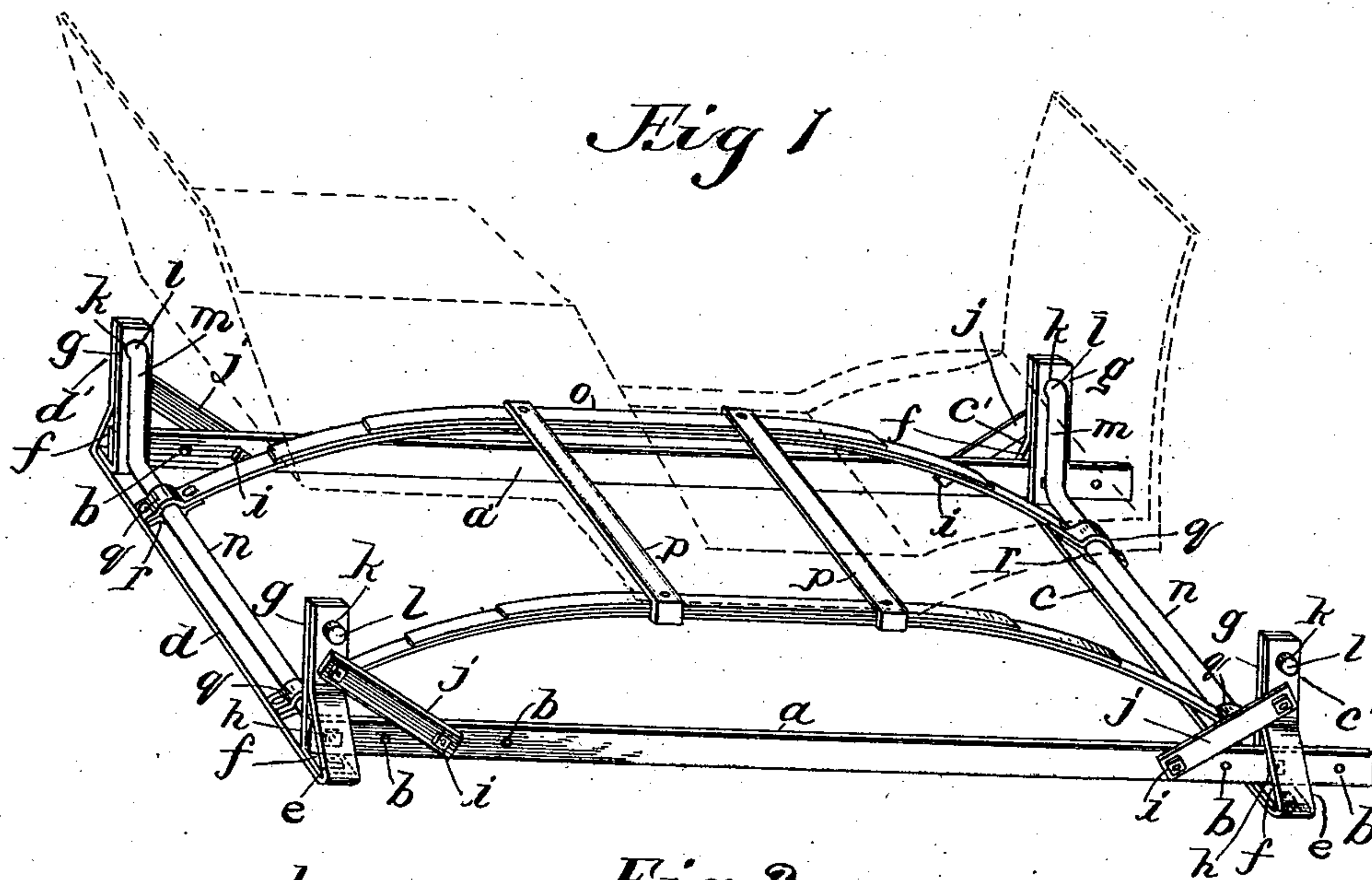


(No Model.)

C. MULLEN.  
CARRIAGE.

No. 501,687.

Patented July 18, 1893.



WITNESSES:

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INVENTOR

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ATTORNEY.



# UNITED STATES PATENT OFFICE.

CURTIS MULLEN, OF HARRISVILLE, INDIANA.

## CARRIAGE.

SPECIFICATION forming part of Letters Patent No. 501,687, dated July 18, 1893.

Application filed March 24, 1893. Serial No. 467,495. (No model.)

*To all whom it may concern:*

Be it known that I, CURTIS MULLEN, a citizen of the United States, residing at Harrisville, in the county of Randolph and State of Indiana, have invented certain new and useful Improvements in Carriages and Wagons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to carriages and wagons, and has particular reference to a body or wagon-bed carrier.

The object of the invention is to start the running gear before the load starts, and to afford a relief from jars when running over rough roads, stones, &c.

A further object is to provide a carrier which can support either a carriage body or wagon bed.

My invention consists of certain features of construction and combinations of parts to be hereinafter described and then specified in the claims.

In the accompanying drawings,—Figure 1 is a perspective view showing a carriage body supported by the carrier, the body being in dotted lines. Fig. 2 is a rear view without the body. Fig. 3 is a longitudinal section, showing a wagon bed supported by the carrier. Fig. 4 shows one of the boxes for connecting the carriage springs to the swinging rods, and Fig. 5 shows one of the boxes for connecting the wagon bed to the said rods.

The carrier frame is constructed so as to accommodate itself to bodies or beds of different sizes, that is to say its parts are adjustable.

$a, a'$ , indicate opposite side bars provided at each end with a series of holes  $b$ .

$c$ , is the front cross-bar and  $d$ , the rear cross-bar, provided respectively with upturned ends  $c', d'$ , which extend outside the side-bars. The bases  $e$ , of the upturned ends  $c', d'$ , are bent so as to provide pockets  $f$ , between them and the angle-irons  $g$ , which latter are secured to the cross bars. Removable bolts  $h$ , pass through some of the holes  $b$ , and the angle-irons  $g$ , and removable bolts  $i$ , pass

through other of said holes  $b$  and through the inner end of the diagonal braces  $j$  which latter are rigidly secured to the upturned ends  $c', d'$ . By means of these removable bolts and said series of holes, the cross-bars  $c, d$ , are adjusted back and forth on the side bars  $a, a'$ , so as to accommodate different sized bodies or beds.

At the tops of the upturned ends  $c', d'$ , and angle irons  $g$ , I provide openings or bearings  $k$ , for the reception of the journals  $l$ , at the ends of the crank-arms  $m$ , projecting from the transverse rods  $n$ . This construction permits the to and fro swinging movement of the rods  $n$ .

In Fig. 1, I have shown the body of a carriage in dotted lines, and in said figure and Fig. 2,  $o$ , indicates a pair of elliptic carriage springs, connected by straps  $p$ . At the ends of the springs  $o$ , are formed semicircular or half-boxes  $q$ , see Fig. 4, which fit over the rods  $n$ , while secured to them are removable semicircular half-boxes  $r$ , which fit under the rods  $n$ . These half-boxes loosely surround the rods  $n$ , and provide bearings therefor.

In Fig. 3,  $s$ , is a wagon-bed, having at each end box sections or pieces  $t$ , (Fig. 5,) which straddle the rods  $n$ , while semicircular or half boxes  $u$ , are removably secured to the pieces  $t$ , and fit under the said rods. These complete boxes provide bearings for the rods  $n$ .

The cross bars  $c$ , and  $d$ , are secured in any suitable manner to the bolsters, not shown.

Having described my invention, what I claim is—

1. A body or bed carrier for carriages and wagons, consisting of side-bars, cross-bars, adjustable thereon, and means for supporting the carriage body or wagon bed, substantially as set forth.

2. A body or bed carrier for carriages and wagons, consisting of side bars, cross-bars provided with upturned ends, angle irons secured to the cross-bars, and to the side-bars, braces secured to the said upturned ends and to the side bars, and swinging cross rods journaled in the upturned ends, said rods being adapted to support a carriage body or wagon bed, substantially as set forth.

3. A body or bed carrier for carriages and

wagons, consisting of side-bars, adjustable cross-bars having upturned ends and bearings, means for securing the cross-bars adjustably to the side-bars, transverse rods for supporting a body or bed, and crank arms on said rods provided with journals received by said bearings, substantially as set forth.

4. The combination with a body or bed carrier for carriages and wagons, the same being provided with swinging rods, of carriage-

springs or a wagon bed provided with sectional boxes secured to said rods whereby the springs or bed are removably secured to said rods, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CURTIS MULLEN.

Witnesses:

G. W. HAMILTON,  
MILES SCOTT.