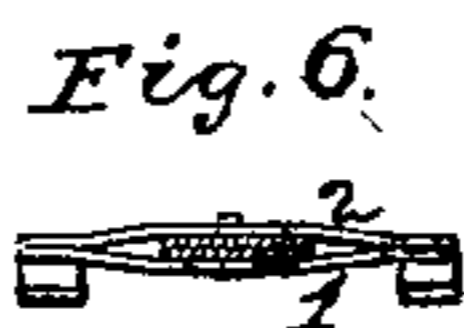
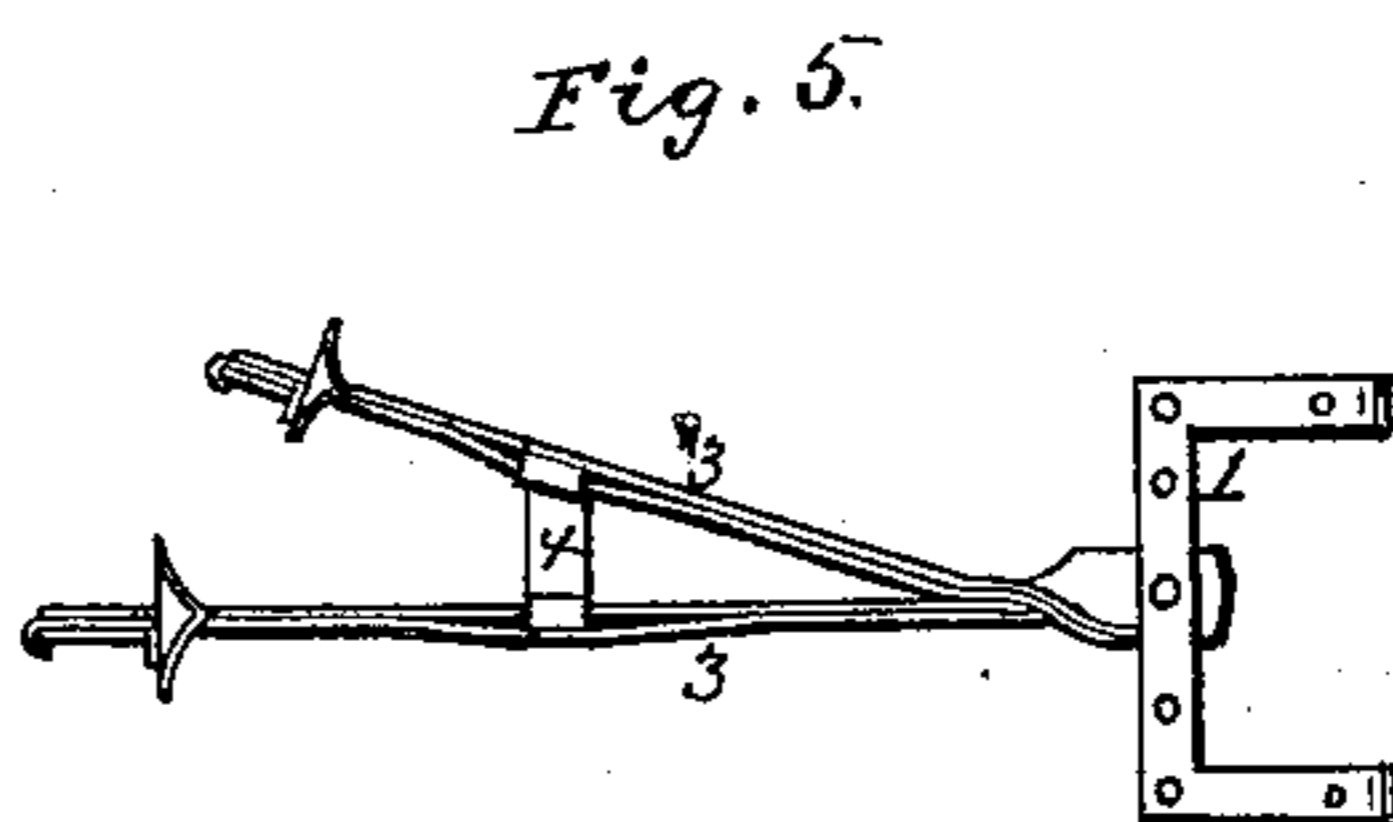
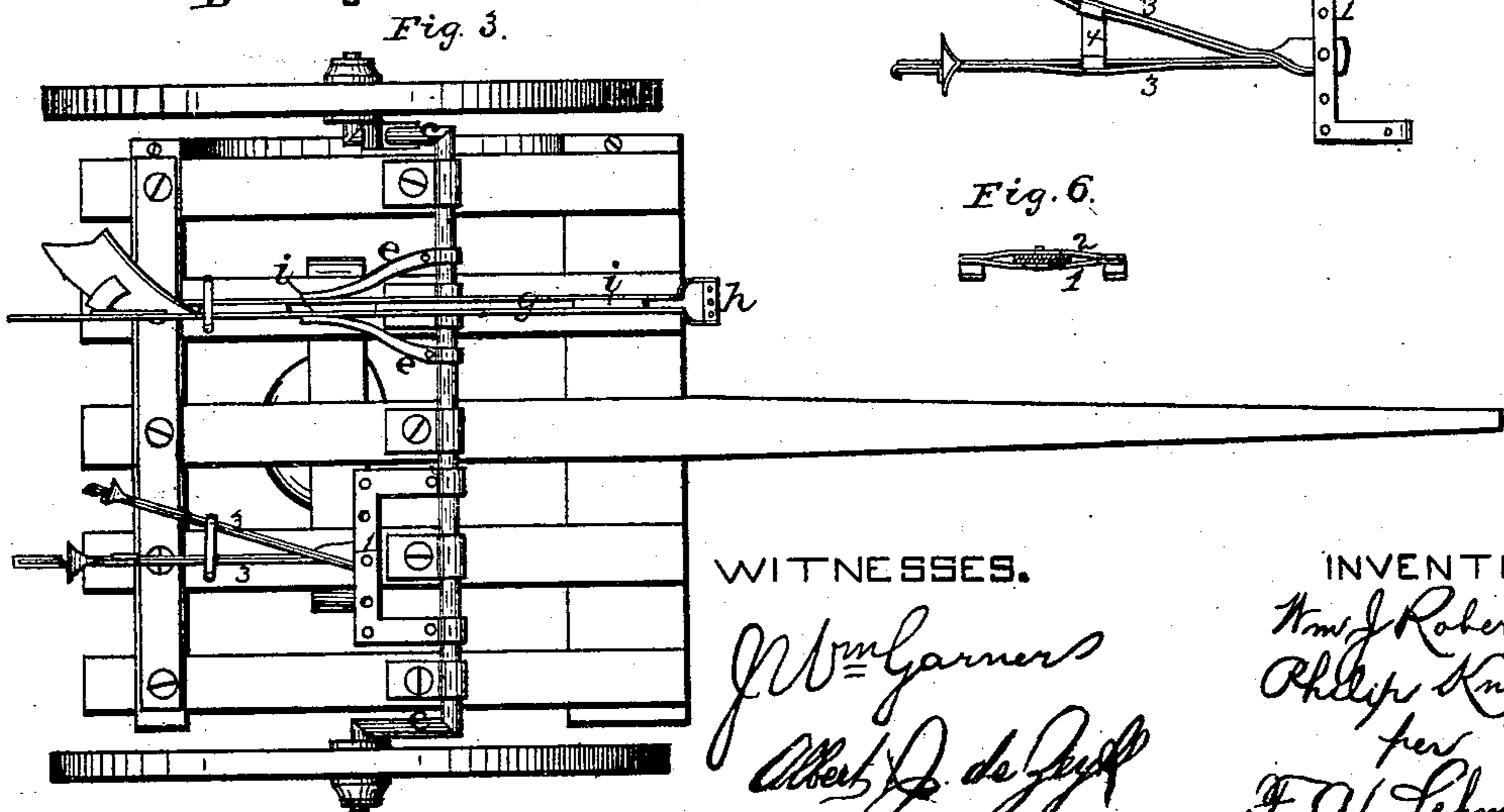
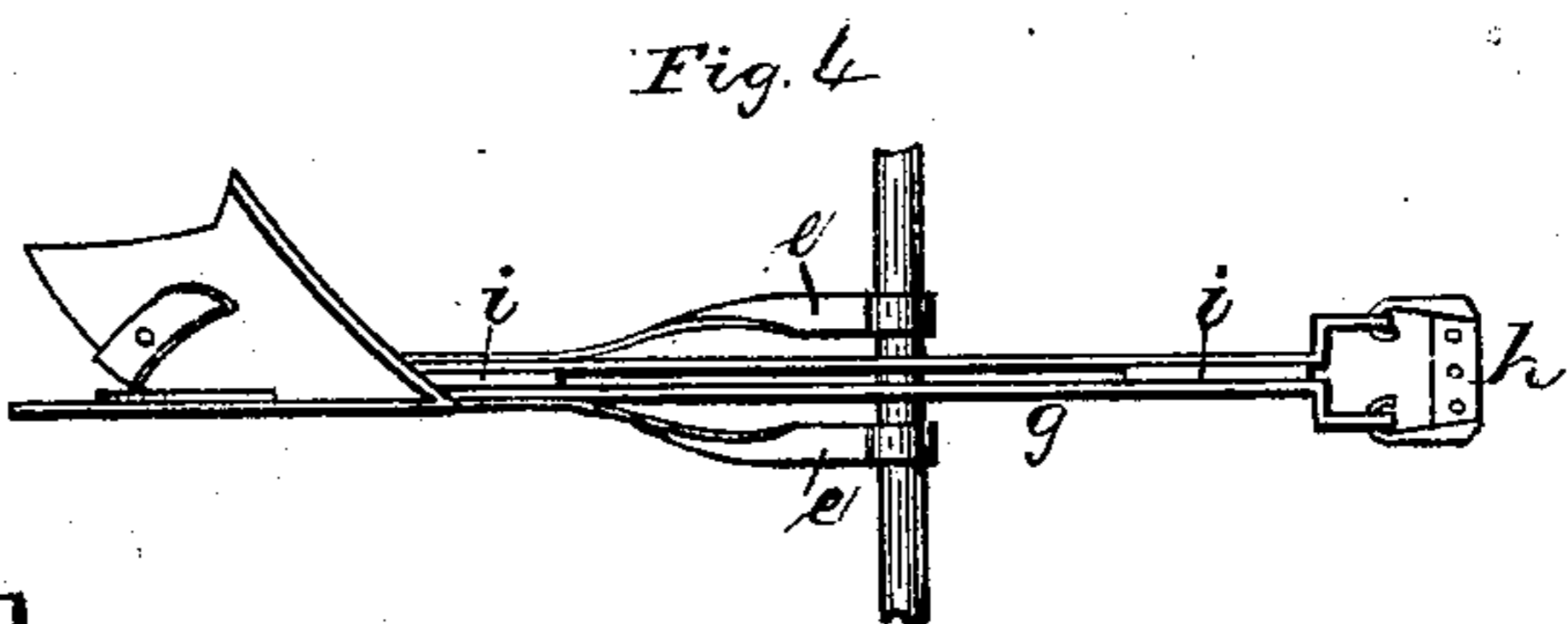
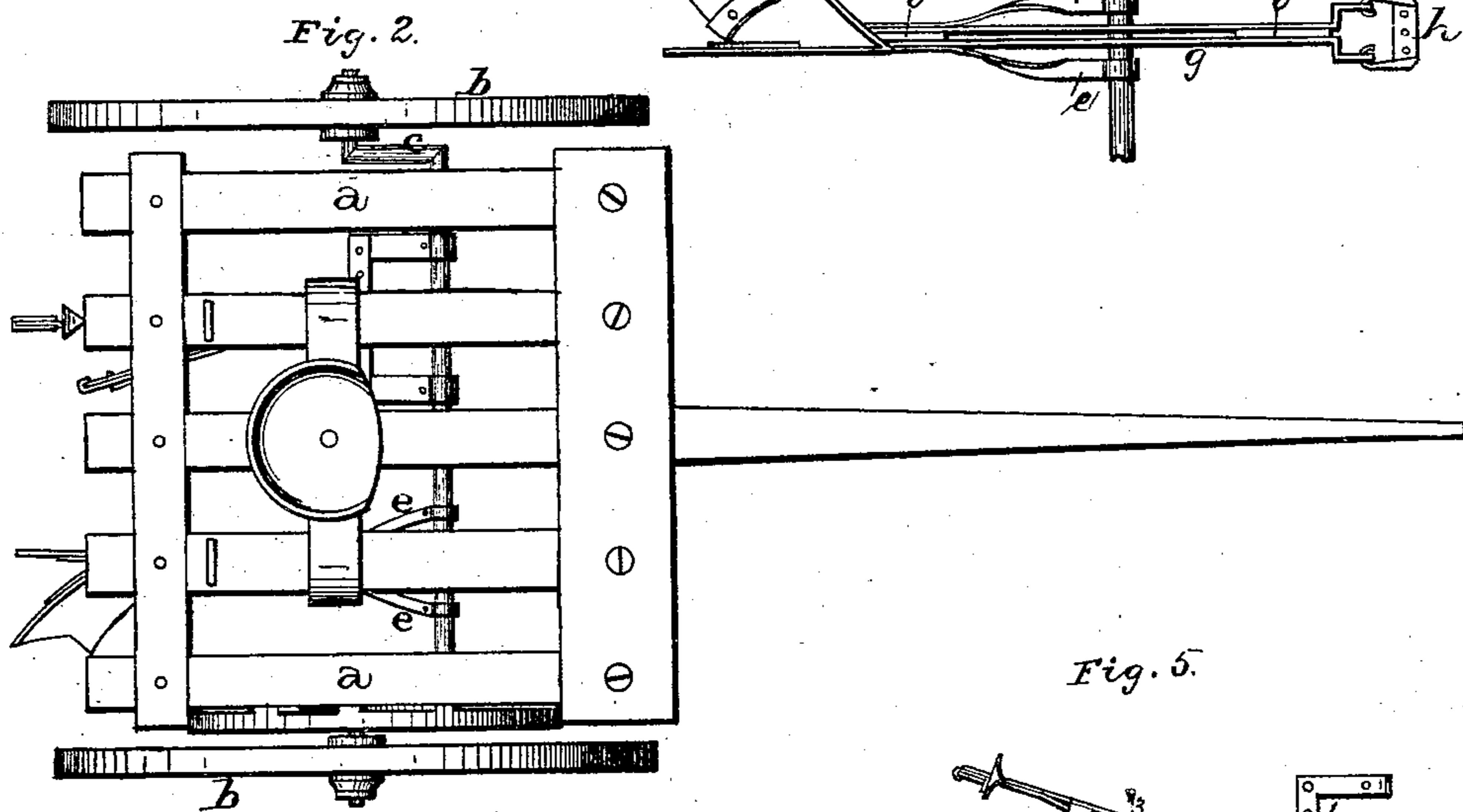
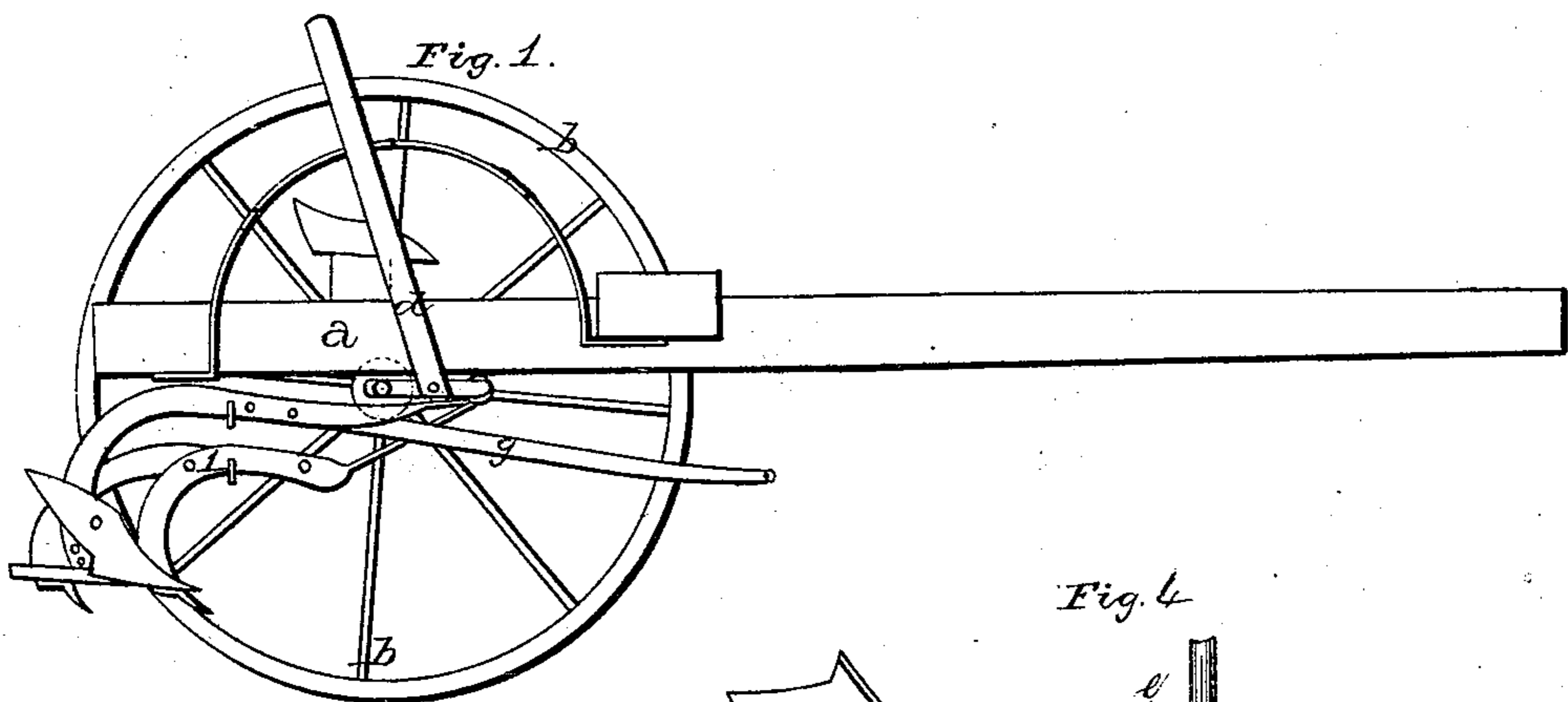


W. J. ROBERTSON & P. KNIGHT.  
CULTIVATOR.

No. 191,179.

Patented May 22, 1877.



WITNESSES.

*J. W. Garner*  
*Albert J. de Joffe*

INVENTORS.

*Wm. J. Robertson*  
*Philip Knight*  
per  
*F. W. Lehmann,*  
*att'y.*

# UNITED STATES PATENT OFFICE.

WILLIAM J. ROBERTSON AND PHILIP KNIGHT, OF JASPER COUNTY, MO.

## IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 191,179, dated May 22, 1877; application filed April 13, 1877.

*To all whom it may concern:*

Be it known that we, W. J. ROBERTSON and PHILIP KNIGHT, of Jasper county and State of Missouri, have invented certain new and useful Improvements in Prairie-Sod Cultivators; and we 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to an improvement in prairie-sod cultivators; and it consists in the peculiar construction and arrangement of parts that will be more fully described hereinafter.

The accompanying drawings represent our invention.

*a* represents the frame; *b*, the wheels; *c*, the cranked axle, and *d* the lever for raising and lowering the frame, all of which parts may be constructed as here shown, or in any other manner that may be preferred. Hooked over the axle are the two plates *e*, which are each bent or twisted so that their rear ends shall be vertical, and bolted or otherwise fastened to the two sides of the beam *g*. This beam consists of two plates that run parallel, and which are separated a suitable distance from each other by means of interposed plates or strips *i*, which are bolted in position at suitable distances apart. The rear ends of the two plates that form the beam *g* are separated, so that one can be fastened to the inside of the land-side, and the other to the inside of the mold-board. Thus separated, these two plates form a brace for the plow, so as to effectually prevent it from being twisted in case the point should strike a stone or other obstruction. The front ends of the plates that form this beam are spread outward, as shown,

and has fastened in them the clevis *h*, which has a series of holes through it, so that the draft of the plow may be regulated at will. Also, hooked over the axle is the rectangular plate 1, which hangs downward a suitable distance, and has a second plate, 2, fastened on top of its rear end. Between these plates 1 2 there is left a sufficient distance to allow the front ends of the cultivator-beams to be inserted between them. By means of the holes through both plates the ends of the beams may be shifted from side to side, as may be necessary. The beams 3 are also composed of two parallel plates riveted together, and are held in the same relative position by means of the brace 4. The shovels are passed through between the lower curved ends of the beams and secured in position.

Having thus described our invention, we claim—

1. A plow-beam, *g*, consisting of two parallel plates, the end of one being fastened to the inside of the mold-board, and the other to the inside of the land-side, in combination with the interposed plates *i* and the plates *e*, for connecting the beam to the axle, substantially as shown.

2. The plow-beam *g*, consisting of two parallel plates that are separated by the interposed plates *i*, and which have their front ends turned outward at right angles, so as to receive the clevis *h*, substantially as set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 26th day of March, 1877.

WILLIAM J. ROBERTSON.  
PHILIP KNIGHT.

Witnesses:

BOWEN W. SPEECE,  
A. B. HOSTETTER.