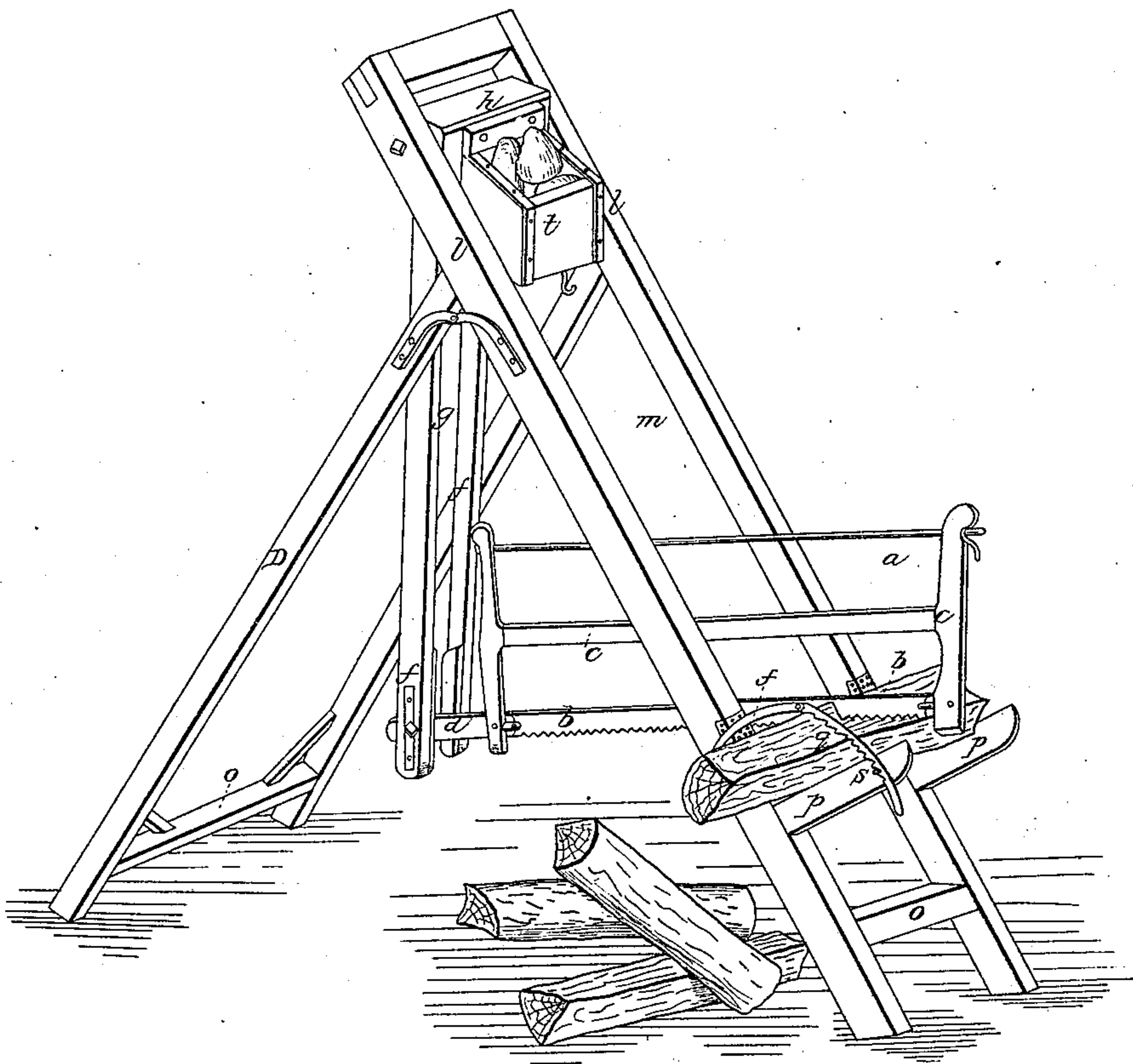


*J. Kunz,*

*Drag Saw.*

*N<sup>o</sup> 53,453.*

*Patented Mar. 27, 1866.*



*Witnesses.*  
*Wm B. Livingston*  
*Gustave Dutcher*

*Inventor:*  
*J. Kunz*  
*By Munroe & Co*  
*attys*

# UNITED STATES PATENT OFFICE.

JOSEPH KUNZ, OF BAY CITY, MICHIGAN.

## IMPROVEMENT IN SAWING-MACHINES.

Specification forming part of Letters Patent No. 53,453, dated March 27, 1866.

*To all whom it may concern:*

Be it known that I, JOSEPH KUNZ, of Bay City, in the county of Bay and State of Michigan, have invented a new and Improved Hand Wood-Saw; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

The present invention consists in hanging one of the ordinary handsaws in such a manner within any suitable supporting-frame that it can be operated with facility and ease and with but little labor compared with the usual way now practiced for sawing wood used for household purposes, as will be obvious from the following detail description, reference being had to the figure of the accompanying plate, which is a perspective view of my invention, showing it in use.

*a a* in the drawing represent an ordinary wood-handsaw, consisting of a saw-blade, *b*, hung within a frame, *c*, made of the usual construction. This frame *c* is hung, by its end *d*, to and between the lower ends of the side pieces, *f f*, of a vertical swinging lever-frame, *g*, hung, by its cross-piece *h*, at its upper end to and between the side pieces, *l l*, of the supporting standard or frame *m*, having attached to it, at an angle thereto, another frame, *n*, which, when spread open therefrom, forms a sufficient base for the whole machine to rest upon. These frames *m* and *n* are strengthened by cross-braces *o o* at suitable points, and on the frame *m*, at the proper points thereof to be in line

with the swing of the saw-blade frame, are supports *p p*, across which the logs of wood to be sawed are placed, as plainly shown in the drawing, and there held in place by the notched lever-bar *q*, hung to the arm *r* of one side of the frame *m*, and interlocking with the stud or pin *s* of one of the supports *p*. At or near the upper end of the swinging lever to which the saw-blade frame is hung is attached a box or receptacle, *t*, in which it is intended to place stones or other heavy material, so as to aid the forward movement of the saw-blade through the log of wood being sawed, as is obvious without further explanation.

The operation of my improved wood-hand-saw is apparent from the above description of its arrangement and from the illustration thereof shown in the accompanying plate, and therefore no particular explanation of it is necessary herein.

The point at which the saw-blade frame is hung to the swinging lever can be changed at pleasure, according as may be desired.

I claim as new and desire to secure by Letters Patent—

The arrangement of the saw *c*, adjustably pivoted to the swinging weighted frame *g*, which vibrates upon pivots in the supporting-frame *m n*, substantially as described and represented.

The above specification of my invention signed by me this 28th day of September, 1865.  
JOSEPH KUNZ.

Witnesses:

B. MITTHAUER,  
G. F. DENNISON.