(No Model.)

N. H. SHAW.

FRAME SAW.

No. 525,365. Patented Sept. 4, 1894.

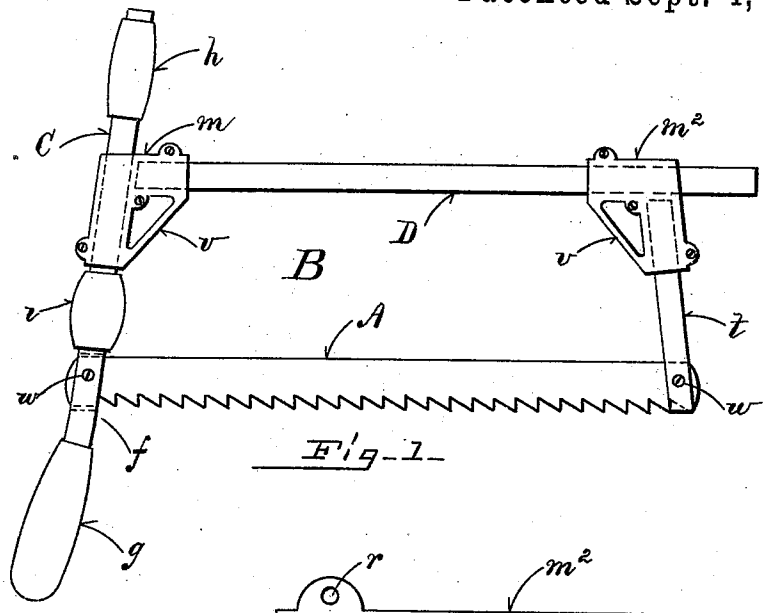


Fig. 1.

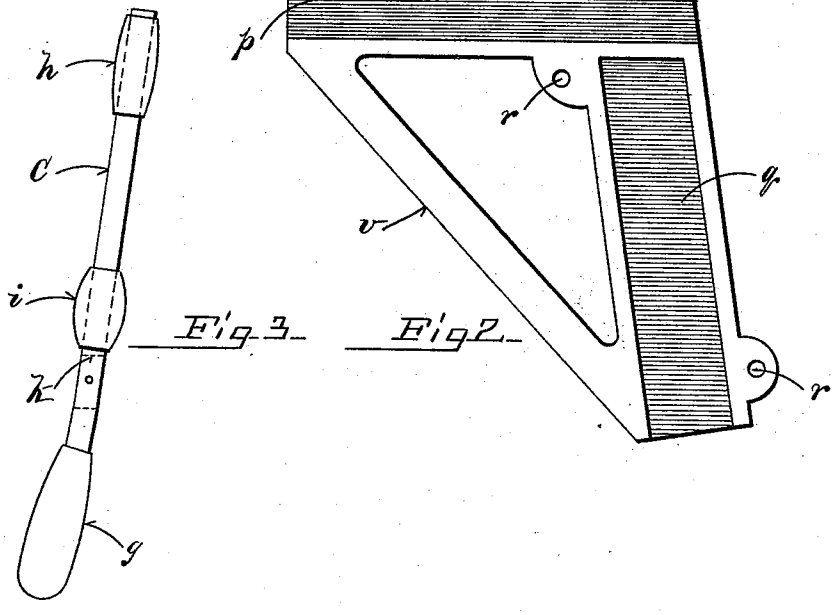


Fig. 3. Fig. 2.

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FRAME-SAW.

SPECIFICATION forming part of Letters Patent No. 525,365, dated September 4, 1894.

Application filed January 4, 1894. Serial No. 495,629. (No model.)

To all whom it may concern:

Be it known that I, NATHANIEL H. SHAW, of Somerville, in the county of Middlesex, State of Massachusetts, have invented certain new and useful Improvements in Frame-Saws, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of my improved buck-saw; Fig. 2 an inner side elevation of one of the clamp-members; and Fig. 3 an elevation of the handle-bar detached from the frame.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates especially to frame wood-saws commonly known as buck-saws and is particularly designed to improve and strengthen the construction of the frame while affording means for adjusting the frame to different lengths of saw-blades.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation:

In the drawings, A represents the blade of the saw and B the frame considered as a whole. The frame comprises a handle-bar, C, which is bent slightly at an angle at, *f*, where it is to receive one end of the blade, A. Said handle-bar comprises a rod of steel rectangular in cross-section and on its lower end a wooden or metallic handle, *g*, is secured, a like handle, *h*, being secured to the upper end of said bar, and midway of the bar a secondary handle, *i*, is secured. The spring-bar, D, of the frame also consists of a rectangular rod of steel. This is secured to the handle-bar by a right-angle clamp, *m*. One member of this clamp is shown in Fig. 2. One arm of the clamp is grooved at, *p*, to receive the handle-bar, the opposite arm being grooved at, *q*, to receive one end of the spring-bar. Said clamp-members are held together by screws passing through lugs, *r*, on the casting. A similar clamp, m^2, holds the spring-bar to the front-bar, *t*, of the frame, the edge of said clamps being provided with a brace, *v*. The spring-bar, D, projects through the clamp, m^2. The clamps, *m*, m^2, may be substituted by angle socket couplings of well known form fitted to receive the ends of the spring-beam and front bar.

The blade is secured to the bar, *t*, and the handle-bar, C, by rivets or screws, *w*. By loosening the screws which hold the members of the clamp, m^2, together said clamp can be moved outward on the spring bar, D, so that a longer saw-blade may be secured to the frame in a manner which will be understood by those conversant with such matters. The front-bar, *t*, is pitched slightly at an angle to the beam or spring-bar, D, and when the blade is strained said beam springs slightly. This springing of the beam by tightening the blade will when a socket coupling is employed clamp the portions of the frame in said socket so that they will not rattle or work loose. By socket coupling it will be understood that I intend to employ a coupling of the same general shape as the clamp described, but which is formed in one piece, the grooves, *p*, *q*, of the clamp forming the sockets for the spring-beam and front-bar. An extremely rigid saw-frame is produced by this construction; all the parts excepting the handles, *g*, *h*, *i*, being of metal the danger of splitting which is incident to the use of wooden bars in saw-frames of ordinary construction is avoided.

When it is desired to use the saw-frame in substantially the same manner as the ordinary hand or carpenter's—a necessity which frequently occurs—the handle, *i*, disposed in proximity to the blade enables this to be done readily.

It will be seen that the saw-frame can be easily knocked down greatly facilitating packing for shipment.

Having thus explained my invention, what I claim is—

1. In a frame-saw, a frame comprising a metallic handle-bar, a spring-beam and a front-bar said beam being detachably connected to the handle-bar and front bar by couplings comprising two members embracing the joining ends of said beam and bars respectively and connected by screws.

2. A frame-saw having a frame comprising a metallic spring-beam; a metallic handle-bar detachably secured thereto by a clamp; a metallic front-bar detachably secured to said beam by a clamp and arranged at an angle thereto, said clamps comprising two members connected by screws and said handle bar projecting above the beam and below the saw-blade to form handles.

3. In a frame-saw, the frame, B, comprising the handle-bar, C; beam, D; and front-bar, *t*, respectively connected by clamps, *m*, *m*^{2}, said handle-bar being provided with handles, *g*, *h*, *i*, arranged substantially as specified.

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