Feb. 11, 1930. L. W. HARTER 1,746,589

STEP STOOL

Filed Oct. 23, 1926

Fig. 1

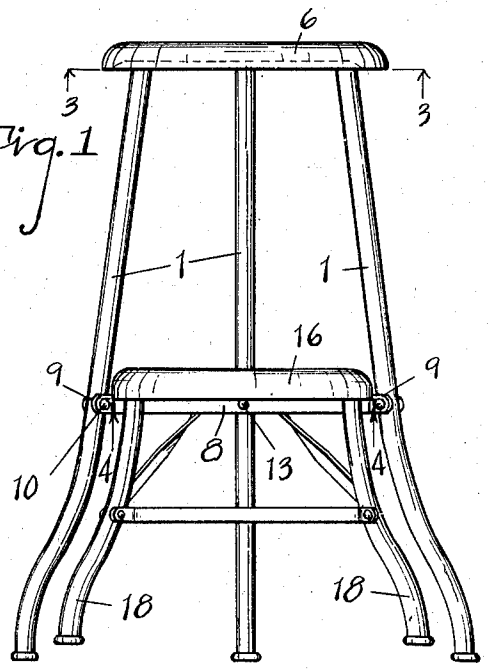



Fig. 3

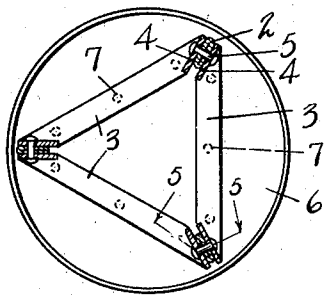



Fig. 4

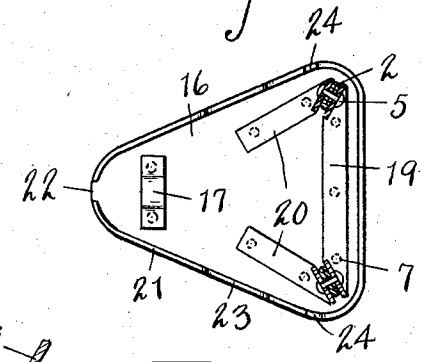



Fig. 2

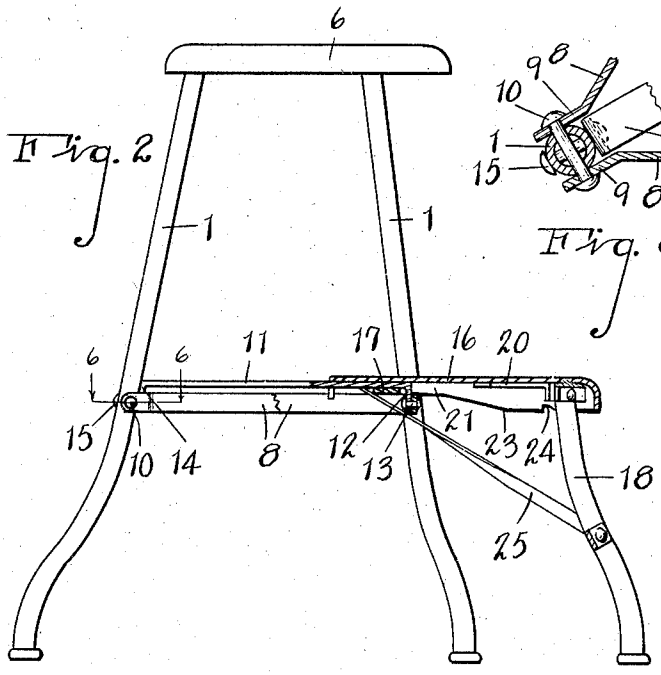
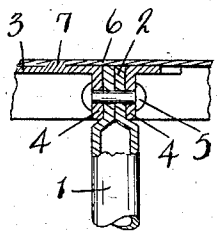



Fig. 6




Fig. 5




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Patented Feb. 11, 1930 1,746,589

# UNITED STATES PATENT OFFICE

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## STEP STOOL

Application filed October 23, 1926. Serial No. 143,605.

The main object of this invention is to provide an improved step stool for household and factory use which may be economically formed of metal and at the same time is not unduly heavy and is strong and rigid.

A further object is to provide a stool of this class in which the step may be readily extended or collapsed and when extended is very firmly supported and also is effectively retained in collapsed position.

Objects pertaining to details and economies of my improvements will definitely appear from the detailed description to follow. The invention is clearly defined and pointed out in the claims.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawing forming a part of this application, in which:

Fig. 1 is a front elevation of my improved step stool with the step collapsed.

Fig. 2 is a side view with parts shown in section and the step in extended position.

Fig. 3 is a section on line corresponding to line 3—3 of Fig. 1 showing details of the seat mounting.

Fig. 4 is a detail of the step on a line corresponding to line 4—4 of Fig. 1.

Fig. 5 is a detail vertical section on a line corresponding to the broken line 5—5 of Fig. 3.

Fig. 6 is a detail section on a line corresponding to line 6—6 of Fig. 2.

Referring to the drawing, the legs 1 are formed of tubing and are preferably outwardly curved at their lower ends to provide stability. The upper ends of the legs are flattened at 2 to provide a flat surface for the attachment of the bed pieces 3. These bed pieces are formed of flat strips or bars having downturned ears 4 at their ends formed to rest against the sides of the flattened portion 2 of the legs. The ears are arranged on opposite sides of the legs and are rigidly secured thereto by rivets 5.

The top 6, which is a metal stamping, is arranged on the bed members and secured thereto by spot welding indicated at 7. The upper sides of the bed pieces are disposed in the same plane and preferably flush with the ends of the legs as shown in Fig. 5.

The legs are connected by the braces 8 which have laterally turned ears 9 disposed on opposite sides of the legs and secured by the rivets 10. The legs are disposed in a triangular relation so that there is one rear leg and a pair of front legs.

A slideway 11 extends from the rear leg to the cross piece connecting the front legs. This slideway has a downturned end 12 at its front end secured to the front cross piece by the rivet 13, and a downturned rear end 14 secured to the rear leg by the rivet 15.

A triangular step member 16 is provided having a loop-like slide 17 on its under side slidably engaging the part 11. At its front end the step member is provided with a pair of legs 18. These legs are provided at their upper ends with bed pieces 19 and 20 secured to the legs in the same manner as the bed pieces 3 of the seat, the step being secured to these bed pieces by spot welding as indicated in Fig. 4.

The step has a downturned flange 21 at its edges, the flange being notched at 22 to engage the slideway 11. This notch coacting with the loop limits the lateral swing of the step on the slide. The flange 21 is formed into cams 23 so that when the step is pushed rearwardly, these cams engaging the front cross piece lift the step, thereby lifting the legs 18 from the floor.

The flange has a notch-like keeper 24 which engages the cross piece, retaining the step in its collapsed position so that the step will not extend or slide forwardly without its being lifted to disengage this keeper or lock. When extended the step is very firmly supported by the cross piece and its legs. Braces 25 are provided for the legs 18.

My improved step stool may be made of comparatively light material and at the same time is very strong and rigid, and is well adapted for domestic or factory use.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a stool, the combination with a seat and legs therefor disposed in triangular rela-

tion to provide a single centrally disposed rear leg and a pair of front legs, a cross piece connecting said front legs, a slideway extending from said cross piece to the rear leg, a triangular step member having a slideway engaging loop disposed on its under side and adjacent the rear end thereof, and a pair of legs for the front end of said step member, said step member having a downturned flange at its edges slotted at the rear to receive said slide and cammed at the sides to coact with said cross piece in elevating the legs of the step member when the step is collapsed, said flange being notched to engage said cross piece for retaining the step in its collapsed position.

2. In a stool, the combination with a seat and legs therefor, a cross piece connecting a pair of said legs, a slideway extending inwardly from such cross piece, a step member slidably connected to said slideway, a pair of legs for the outer end of said step member, said step member having a cam on its under side coacting with said cross piece to elevate the step member when the step member is collapsed, and an automatically engaging keeper acting to hold said step member in its collapsed position.

In witness whereof I have hereunto set my hand.

LABAN W. HARTER.