## United States Patent Office.

HENRY W. AVERY AND WALLACE S. JUDD, OF CLEVELAND, OHIO, ASSIGNORS TO THE AVERY STAMPING COMPANY, OF SAME PLACE.

## POST-HOLE DIGGER.

SPECIFICATION forming part of Letters Patent No. 626,959, dated June 13, 1899.

Application filed February 20, 1899. Serial No. 706,232. (No model.)

To all whom it may concern:

Be it known that we, HENRY W. AVERY and WALLACE S. JUDD, citizens of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Post-Hole Diggers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

The object of this invention is to provide a strong and inexpensive post-hole digger which may be used without any danger that

the operator will pinch his fingers.

The invention consists of two curved blades made of sheet metal, each having at its upper end an integral outwardly - rolled tubular socket combined with two hinge-arms riveted to the inside of the blades near their upper ends and pivoted to each other, and also in the more specific combinations of parts hereinafter described, and pointed out definitely in the claims.

In the drawings, Figure 1 is a side elevation of our improved post-hole digger. Fig. 2 is a rear view of one of the blades. Fig. 3 is a perspective view of the inside of one of the blades with the hinge-leaf secured thereto.

Referring to the parts by letters, A and B represent the two blades of the device. They 30 are made out of sheet metal, substantially scoop-shaped, as shown. Each is provided at its upper end with an integral tubular socket, which sockets are respectively indicated by a and b. Each of these sockets is 35 formed by bending an integral tongue forward and then bending the edges of this tongue backwardly until they meet. By thus bending the tongue forward the axis of the socket is brought over the top of the blade, 40 whereby the handles when introduced into the sockets will at their lower ends engage with the blades and will project into one of the shallow recesses  $a^4 b^4$ , which are pressed into the tops of said blades when the tongues 45 from which the socket-pieces are made are bent forward, as described. Before curving these tongues to form the sockets the bosses a' and b' are pressed outwardly in such position that when the parts of the device are as-50 sembled these bosses will engage with each other, and thus prevent the upper ends of the handles C from coming close enough together to pinch the fingers of the person who is hold-

ing said handles. These handles are inserted

into the sockets and they are there held by 55 rivets or other suitable means.

The two blades are connected by a hinge D, whereby they are capable of moving with respect to each other from the position shown in full lines in Fig. 1 to the position shown 60 by dotted lines in the same figure. This hinge is composed of the arms d, each of which has at its rear end the oppositely-extended wings d, which are curved to conform with the inner surface of the upper end of 65 the blade, to which it is attached by rivets. The outer ends of these arms are substantially disk-shaped and they are pivoted together by a bolt or rivet d.

Having described our invention, what we 70 claim as new, and desire to secure by Letters

Patent, is—

1. In a post-hole digger, two blades, each made of a single piece of metal and having at its upper end substantially vertical tubu- 75 lar handle-sockets and handles fitted into said sockets, combined with two hinge-arms pivoted together, each of which arms has two oppositely-extended curved wings which are fitted and fastened to the inner side of said 80 blades near their upper ends, substantially as and for the purpose specified.

2. In a post-hole digger, two like blades made of bent sheet metal and consisting of a curved blade and an integral vertical tubular 85 socket having a bent boss on its front side and handles fitted in said sockets, with means for hinging said blades together, substantially as and for the purpose specified.

3. In a post-hole digger, two like blades A 90 and B, each having a shallow depression in its top, and an integral tongue which is bent forward and its edges rolled backward to form a vertical socket whose axis is over said depression, and handles secured in said sockets, 95 with their lower ends in said depressions, combined with two hinge-arms pivoted together and having two oppositely-extended wings which are fitted and fastened to the inner sides of said blades, substantially as 100 and for the purpose specified.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

HENRY W. AVERY. WALLACE S. JUDD.

Witnesses:

E. L. THURSTON,
PHILIP E. KNOWLTON.

No. 626,960.

Patented June 13, 1899.

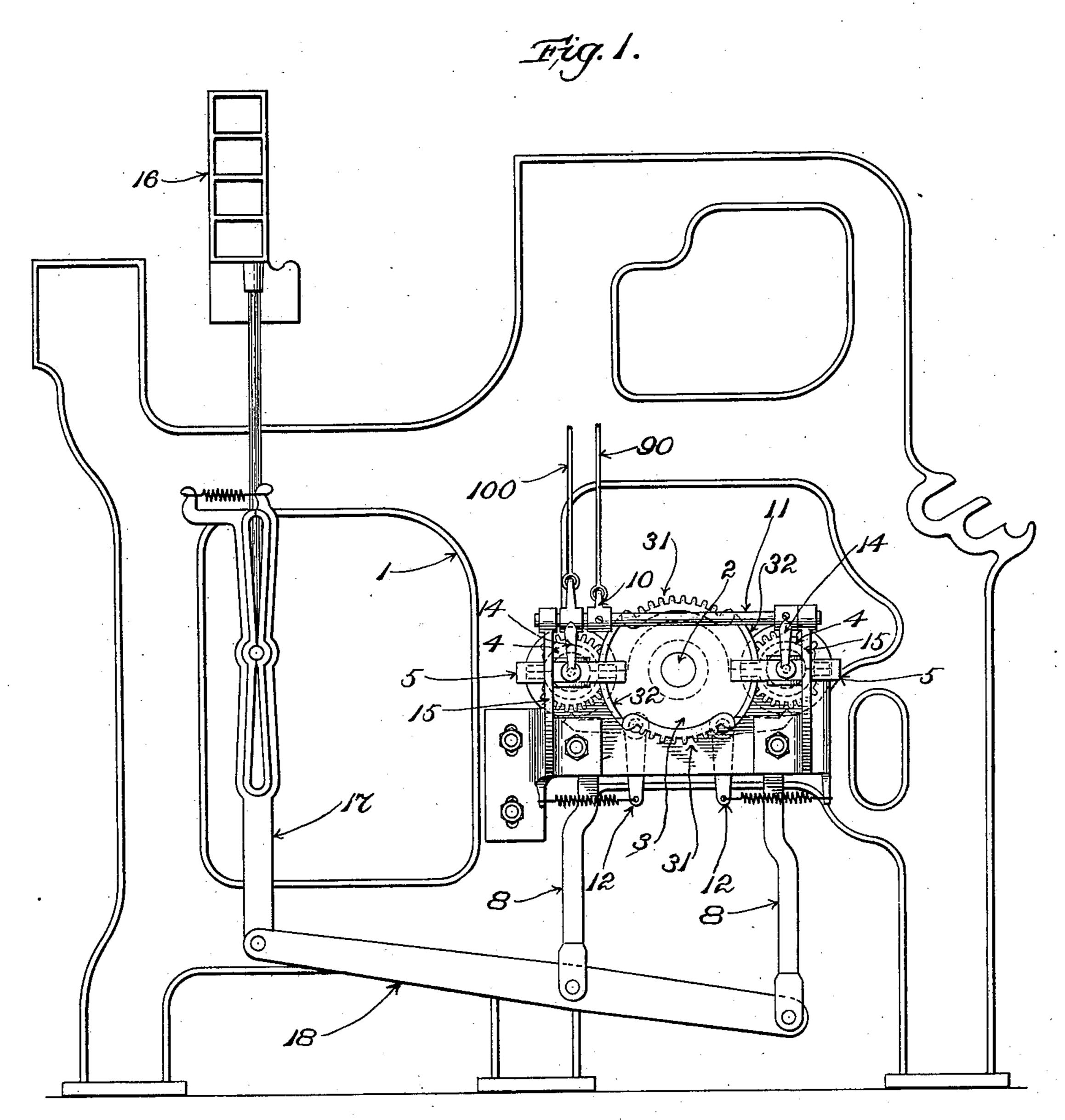
## H. BARDSLEY.

## SHUTTLE BOX MOTION FOR LOOMS.

(Application filed Apr. 13, 1899.)

(No Model.)

2 Sheets-Sheet I.



Witnesses:

Edith J. Anderson. Oscar F. Hill

Lowerton: Lem Bandsley

By Marles Balvert Ramball

Attorneys.