

OLIVER SIEGLER, OTTO SIEGLER & FERDINAND SIEGLER.

ADJUSTABLE RIVETING STAKE.

APPLICATION FILED MAY 16, 1908.

935,555.

Patented Sept. 28, 1909.

3 SHEETS-SHEET 1.

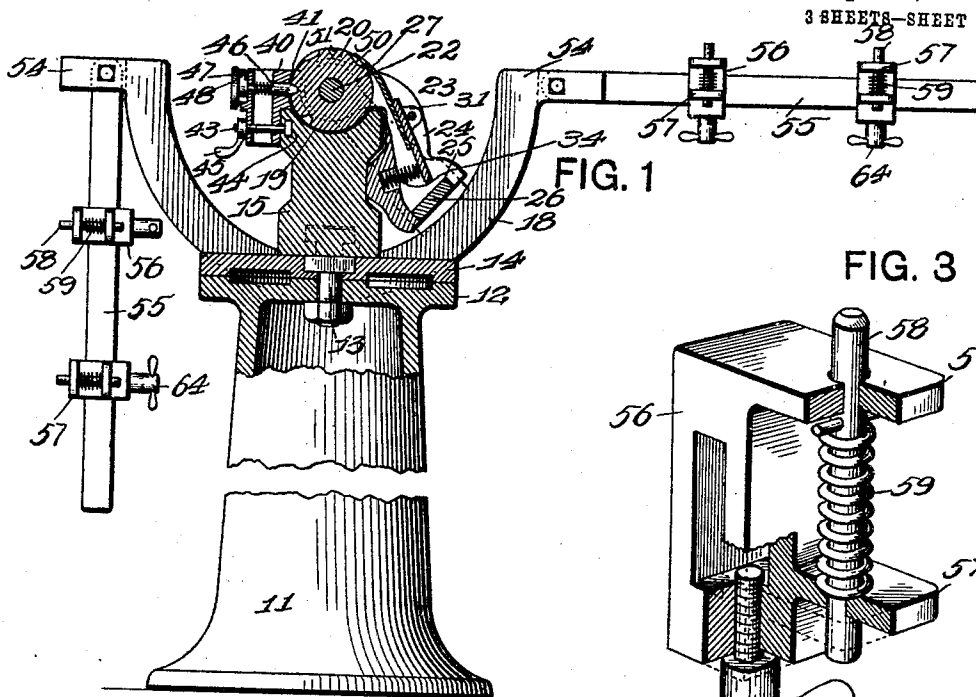


FIG. 1

FIG. 3

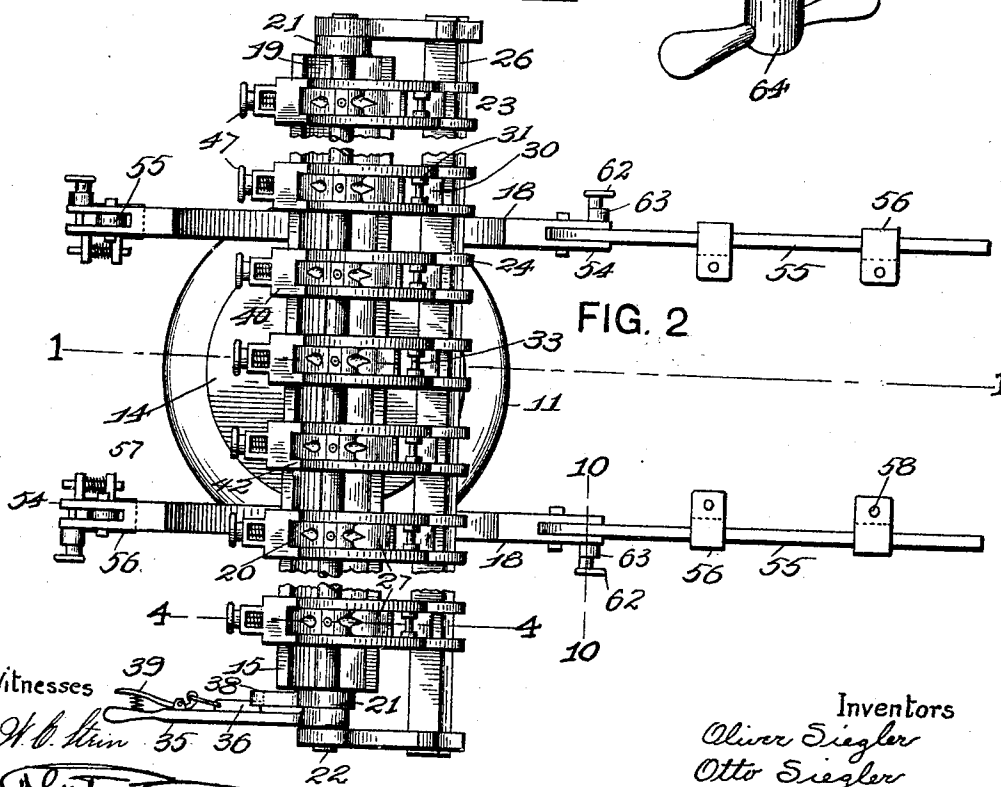
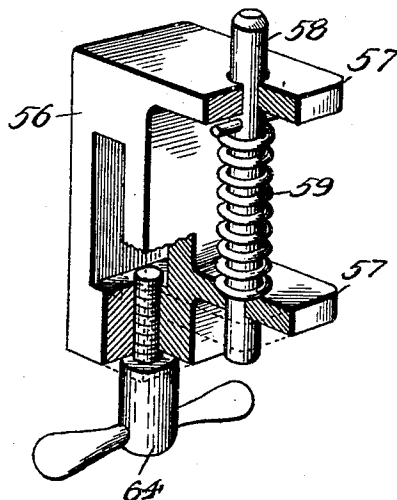


FIG. 2

Witnesses

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3 SHEETS—SHEET 2.

FIG. 4

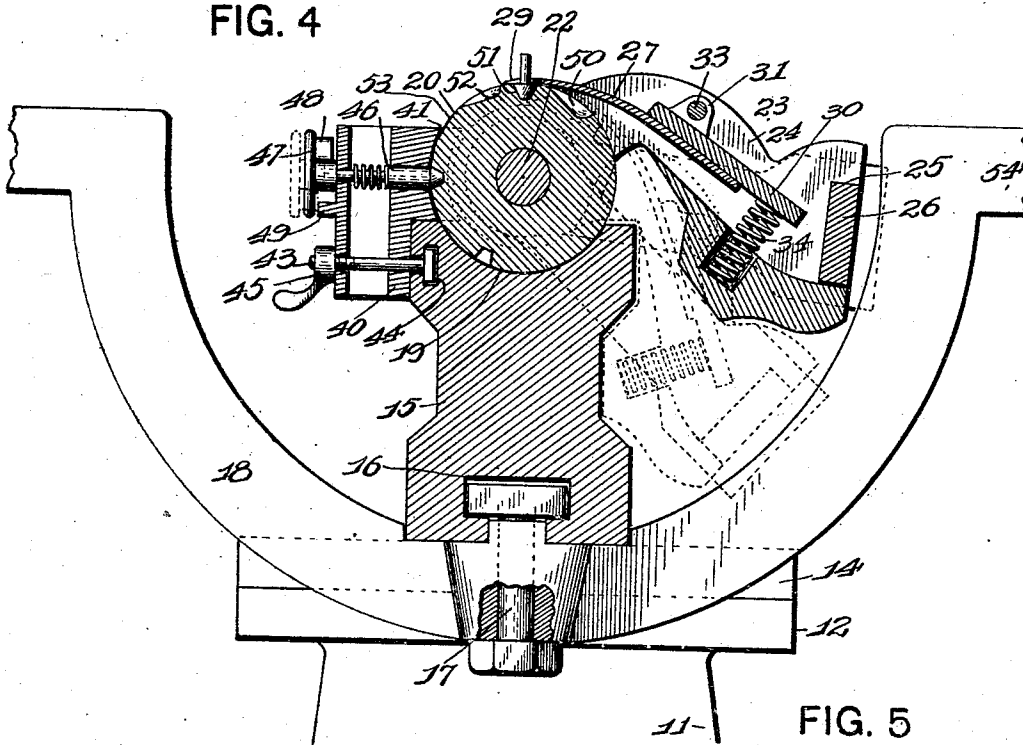
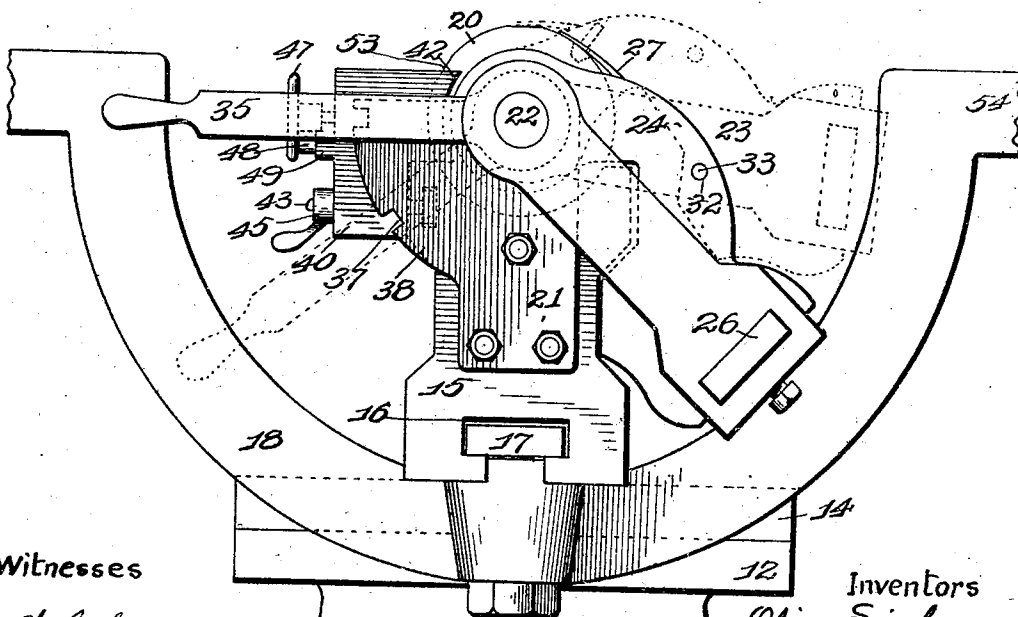


FIG. 5



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3 SHEETS—SHEET 3.

FIG. 6

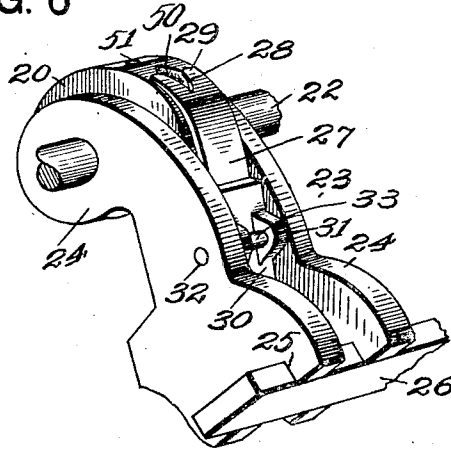


FIG. 7

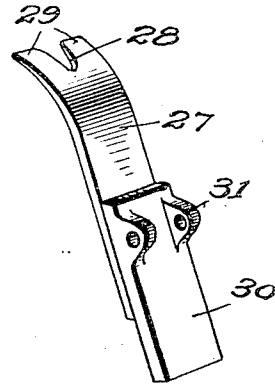


FIG. 8

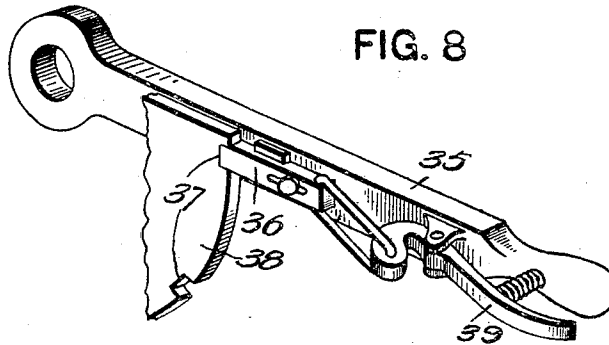


FIG. 9

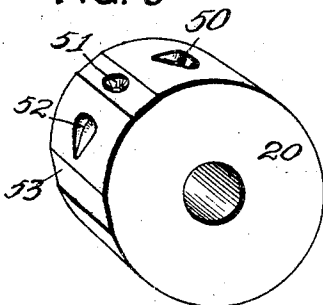
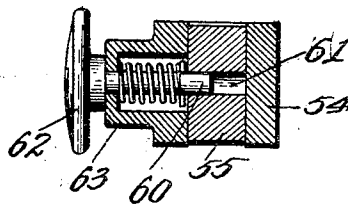


FIG. 10



Witnesses

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UNITED STATES PATENT OFFICE.

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ADJUSTABLE RIVETING-STAKE.

935,555.

Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed May 16, 1908. Serial No. 433,303.

To all whom it may concern:

Be it known that we, OLIVER SIEGLER, OTTO SIEGLER, and FERDINAND SIEGLER, citizens of the United States, and residents of Belleville, Illinois, have invented certain new and useful Improvements in Adjustable Riveting-Stakes, of which the following is a specification.

This invention relates to improvements in an adjustable riveting stake and consists in the novel arrangement, construction and combination of parts as will be fully hereinafter described and claimed.

The object of our invention is to construct a machine with a plurality of riveting dollies adjustably mounted on a support for retaining rivets in alinement and so adjusted as to correspond with the rivet openings in the material to be riveted, each dolly being provided with a rivet holder whereby the rivet is held in position while the article to be riveted is placed in position.

A further object of our invention is to provide a mechanism in which the rivets are inserted and by the manipulation of a handle the rivets are placed in position and in alinement so that the article to be riveted may be placed on the machine, the holes in the article corresponding with the position of the rivets so that the operator may readily and easily rivet the article without the necessity of using a helper for supporting one end of the rivet while the hammer is being brought in contact with the rivet.

Figure 1 is a central sectional view of our invention taken on the line 1—1 of Fig. 2. Fig. 2 is a top plan view of the same with parts broken away. Fig. 3 is a detail perspective view with parts broken away and in section, showing the construction of the guide made use of in connection with our invention. Fig. 4 is an enlarged central sectional view taken on the line 4—4 of Fig. 2. Fig. 5 is an end view. Fig. 6 is a detail perspective view of one of the dollies and rivet holder showing their relative positions. Fig. 7 is a detail perspective view of the spring actuated rivet prong which forms a part of the rivet holder. Fig. 8 is a detail perspective view of the handle by which the rivet holders are manipulated. Fig. 9 is a detail perspective view of one of the dollies. Fig. 10 is a cross sectional view taken on the line 10—10 of Fig. 2.

In the construction of our invention, we provide a suitable base 11, its upper portion

provided with a projecting plate 12, its center being provided with an aperture through which a king bolt 13 is inserted. On the plate 12 is mounted a table 14, its center being provided with an aperture and recess to accommodate the insertion of the head of the king bolt, this construction permitting the table and the mechanism carried thereby to be turned to accommodate the position of the workman.

On the table 14 is securely fastened a dolly-bar 15, its under surface on each side of the table provided with a T shaped groove 16 which is for the purpose of accommodating the insertion of a bolt 17. By the bolt 17, the guide frame 18 is held in position, one of said frames being located on each side of the table and by the manipulation of the bolts, the supporting frames can be adjusted to accommodate the width of the article to be riveted. The dolly bar 15 is rigidly retained in position upon the table 14 by bolting the same thereon or the same may be formed integral with said table if found desirable. The upper surface of the dolly bar is provided with a curvilinear groove 19. In this groove rests the periphery of each dolly 20, the connection at this point being such as to permit the same to contact yet allow the dolly to be moved when desired to accommodate the use of the different styles of rivets. As we use rivets with different styled heads such as cone, flat or round depending on the material or article to be riveted and when such styled rivets are to be used, the dollies must be adjusted to bring the proper recesses in position to accommodate such rivet.

On each end of the dolly bar 15 is attached a support 21 in which is mounted a shaft 22, said shaft extending the entire length of the machine and passing through apertures formed in the center of each dolly, thus retaining said dollies in alinement and on said shaft said dollies may be adjusted laterally to accommodate the spacing of the rivets. On said shaft 22 are mounted rivet holders 23, which consist of a yoke, the arms 24 of said yoke located on each side of the dolly, the free ends of said arms provided with recesses 25 in which is firmly secured a bar 26, this bar extending the entire length of the machine, connecting each rivet holder and by this bar the entire series of rivet holders can be simultaneously operated.

In the rivet holder is pivotally mounted a

rivet prong 27 which is made preferably of
 spring material, its curved end provided
 with a slot 28 through which the shank of
 the rivet projects; the teeth 29 contacting
 5 with the inner surface of the rivet head
 thereby holding said rivet in position. The
 rivet prong is attached to a plate 30 which
 is provided with a pair of perforated ears
 31 and through said ears and through holes
 10 32 formed in the rivet holder is placed a pin
 33 by which the rivet prong is pivotally re-
 tained in position, the teeth 29 of said
 rivet prongs being held in contact with the
 15 peripheries of the dollies by an expansive
 spring 34. On one end of the shaft 22 is
 mounted a handle 35 on which is carried a
 sliding tooth 36 designed to come in contact
 with the recess 37 formed in the projection
 20 38 of the support 21. The sliding tooth 36
 is operated by the spring actuated handle 39
 and by means of the tooth 36 the entire series
 of rivet holders can be retained in an ele-
 vated position, as shown in Fig. 4, when
 the handle is operated and the tooth con-
 25 tacting with the lowest recess in the projec-
 tion 38. On the front surface of the dolly-
 bar is placed a plurality of adjusting blocks
 40 corresponding in number with the dollies,
 the said blocks provided with recesses 41
 30 into which the dolly projects. The prongs
 42 which project by the forming of the re-
 cess, contact with the sides of the dolly, re-
 taining the same in position and by said
 prongs the dolly together with the rivet
 35 holder can be adjusted on the shaft 22.

The adjusting blocks 40 are held in locked
 position after adjusting by means of the bolt
 43; the head retained in a T shaped groove
 44 formed in the dolly-bar; the threaded end
 40 of said bolt having a nut 45 which is ma-
 nipulated by the operator when desiring to
 adjust and work the adjusting blocks in po-
 sition. The adjusting block is also pro-
 vided with a dolly locking pin 46, said pin
 45 being spring actuated and provided with a
 head 47; the inner surface of the head pro-
 vided with a lug 48 which is designed to
 come in contact with the projection 49
 50 formed on the face of the adjusting block,
 holding the pin out of contact with the dolly
 when it is desired to rotate the dolly when
 setting the same to accommodate the re-
 quired style of rivet.

The peripheries of the several dollies are
 55 provided with recesses, two of said recesses
 shaped to accommodate the insertion of the
 end of the pin 46; a recess 50 formed to
 accommodate a cone-head rivet, the surface
 being inclined so as to permit the cone-head
 60 rivets to be conveyed into the recess 51 in
 which the rivets are held in perpendicular
 position in alinement so that the article to
 be riveted can be readily placed in position
 over the rivet shanks.

65 The recess 52 is arranged to accommodate

a flat-head rivet, its surface tapering to a
 flattened surface 53 formed on the dolly on
 which is set the head of said rivet and also
 held in position when the dolly has been
 properly adjusted so that the flat surface 53
 70 is brought at the top of the machine.

The guide frames 18 have a pair of
 horizontal projecting prongs 54, said prongs
 being bifurcated and between the prongs of
 the bifurcations is pivotally mounted a bar
 75 55, and on said bar are mounted guides 56,
 said guides consisting of a block having a
 pair of projecting ears 57 perforated,
 through which projects a pin 58 and on said
 pin between the ears is a coil spring 59
 80 which is so arranged as to keep the upper
 end of said pin in raised position, yet the
 spring being of such tension as to permit the
 pin to lower when the article to be riveted
 comes in contact therewith. The purpose
 85 of said pin is to permit the edge of the article
 to be riveted to contact with the side there-
 of which when regulated will act as a guide
 for the article to be riveted, permitting the
 holes in the material to correspond with the
 90 line of rivets supported on the machine, and
 the reason of the pins lowering when con-
 tacted by the article is that in the event the
 article is of such length that the outermost
 guide is necessary, the inner one will not
 95 interfere as the weight of the article will
 depress the pins. The bars 55 are held in
 horizontal position by the spring actuated
 pin 60 fitting into the bore 61 formed in the
 bar, and said pin 60 is manipulated by means
 100 of the knob 62. This pin is held in position
 in the boss 63 located on one of the prongs
 of the bifurcation, and when only one set of
 bars are used the other pair are permitted
 to hang in vertical position out of the way
 105 of the operator.

The guide blocks 56 are held in their hori-
 zontally adjusted positions upon the bars 55
 by means of the thumb-screw 64 carried by
 the block. See Fig. 3.

The operation of our invention is as fol-
 110 lows: The machine as shown in the draw-
 ings, is set for handling cone-head rivets.
 The rivets are placed in the grooves 50 be-
 tween the teeth 29 of the rivet prong and
 115 when the entire series of rivet holders are
 provided with rivets, the operator manipu-
 lates the handle 35 raising the rivet holders
 in a position as shown by solid lines in Fig.
 4 and by dotted lines in Fig. 5. The rivets
 120 are conveyed forward until the heads lodge
 within the recesses 51. The article to be
 riveted is then placed on the guide frame,
 the edge contacting with one of the guides
 as set for the purpose. The punches or
 125 openings in the material to be riveted being
 in alinement with the row of rivets, the arti-
 cle is then placed over the rivet shanks per-
 mitting the shanks to project through the
 openings; the operator then manipulates the
 130

handle 35 bringing the same in horizontal plane as shown in Fig. 5, lowering the rivet holders, releasing the prongs from the rivet, the rivets being held in place upon the dolly by the weight of the article and the rivets are then flattened by the use of a hammer and when completed the article is removed from the guide frames. When it is desired to use flat-head rivets, the operator manipulates the head 47 withdrawing the pin 46, then revolves the dolly to its proper position bringing the flat surface 53 on the top. The pin 46 is then released and its end permitted to lodge within the recess formed in the dolly locking same. When it is desired to adjust the dolly horizontally on the shaft 22, the thumb-nut 45 is manipulated and the entire mechanism is shifted on the shaft so as to regulate the spacing of the rivets and when adjusted the screw is tightened to retain the mechanism in rigid position.

This construction of mechanism has been especially designed for riveting stove and range bodies, and by its use the rivet heads are kept in perfect condition and unbattered. It disposes with the use of a helper to hold the rivet-head while the shank is being flattened. By the movement or rotation of the individual dollies, we can assort the rivets in the riveting alinement, bringing a mixture of flat or cone head rivets.

Having fully described our invention, what we claim is:

1. A device of the class described comprising a dolly-bar and a plurality of dollies slidably mounted upon said dolly-bar, substantially as specified.

2. A device of the class described comprising a base; a dolly-bar mounted upon said base; a plurality of dollies slidably mounted on said dolly-bar; and adjusting blocks supported on the dolly-bar for retaining the dollies in their set position, substantially as specified.

3. A device of the class described comprising a dolly-bar; a shaft supported by said dolly-bar; a plurality of dollies mounted upon said shaft and contacting with the

dolly-bar; a corresponding number of adjusting blocks mounted on the dolly-bar and contacting with the dollies, and means carried by the adjusting blocks for retaining the dollies in a locked adjusted position, substantially as specified.

4. A device of the class described comprising a dolly-bar; a shaft supported by said dolly-bar; a plurality of dollies mounted upon said shaft and contacting with the dolly-bar; a corresponding number of adjusting blocks mounted on the dolly-bar and contacting with the dollies; means carried by the adjusting blocks for retaining the dollies in a locked position; rivet holders mounted on said shaft corresponding in number with the dollies, each provided with a spring-actuated rivet prong whereby the rivets are held in position and conveyed in proper alinement on the several dollies, and a handle for operating the rivet holders, substantially as specified.

5. A device of the class described comprising an elongated dolly-bar mounted on a base; a shaft located above and supported by the dolly-bar; a plurality of rotatable dollies mounted upon said shaft and contacting with the upper surface of the dolly-bar, the peripheries of the dollies being recessed to accommodate the heads of various shaped rivets; means for bringing the dollies into operative position; rivet holders mounted on said shaft and communicating with the several dollies; means for simultaneously placing the rivet holders in operation; adjusting blocks supported by the dolly-bar and communicating with the dollies for retaining them in their set position, substantially as specified.

In testimony whereof, we have signed our names to this specification, in presence of two subscribing witnesses.

OLIVER SIEGLER.
OTTO SIEGLER.
FERDINAND SIEGLER.

Witnesses:

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