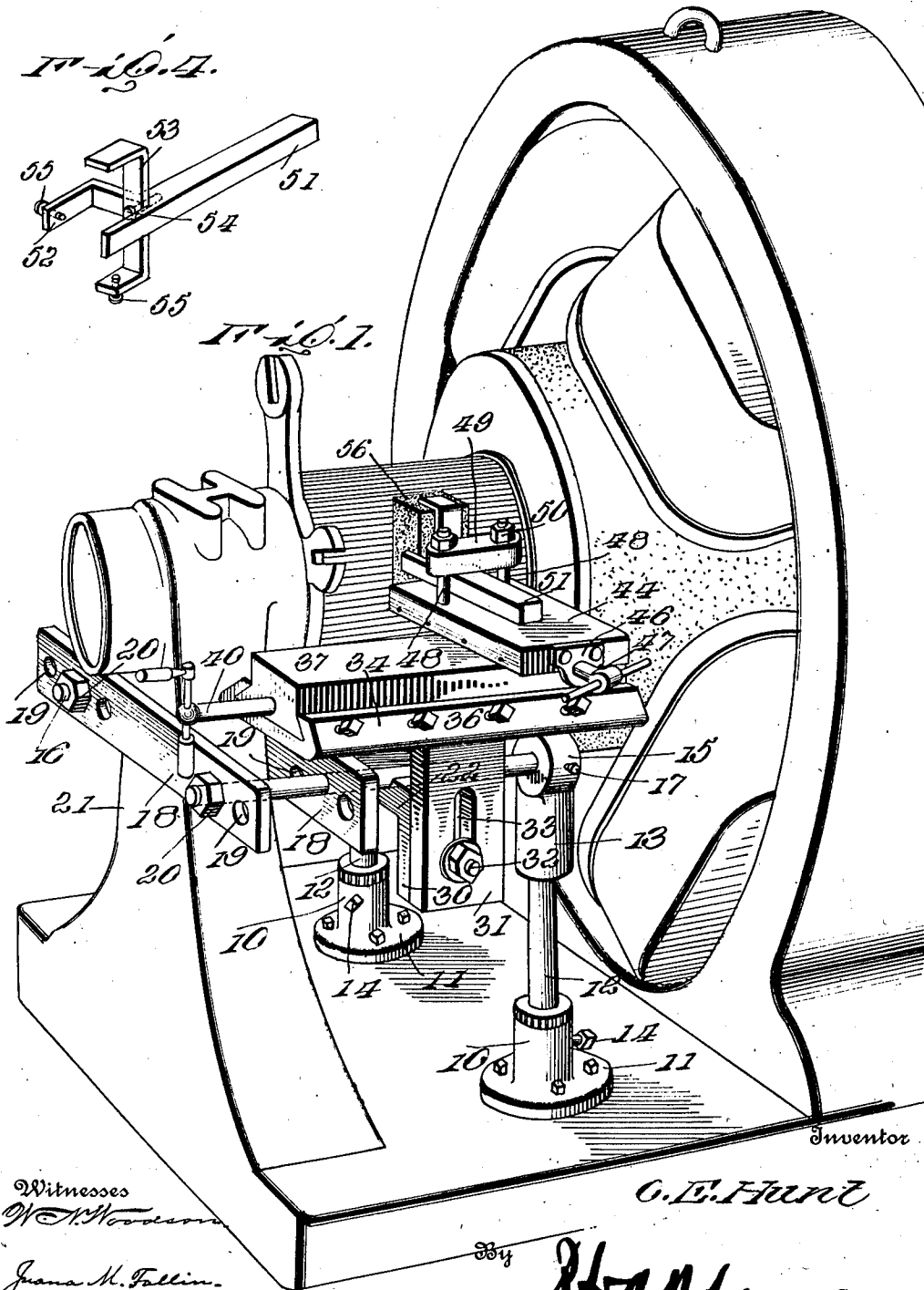


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 TRUING MACHINE.
 APPLICATION FILED AUG. 19, 1910.

991,996.

Patented May 9, 1911.

2 SHEETS—SHEET 1.



Witnesses
 W. H. Woodson
 Juana M. Fallin.

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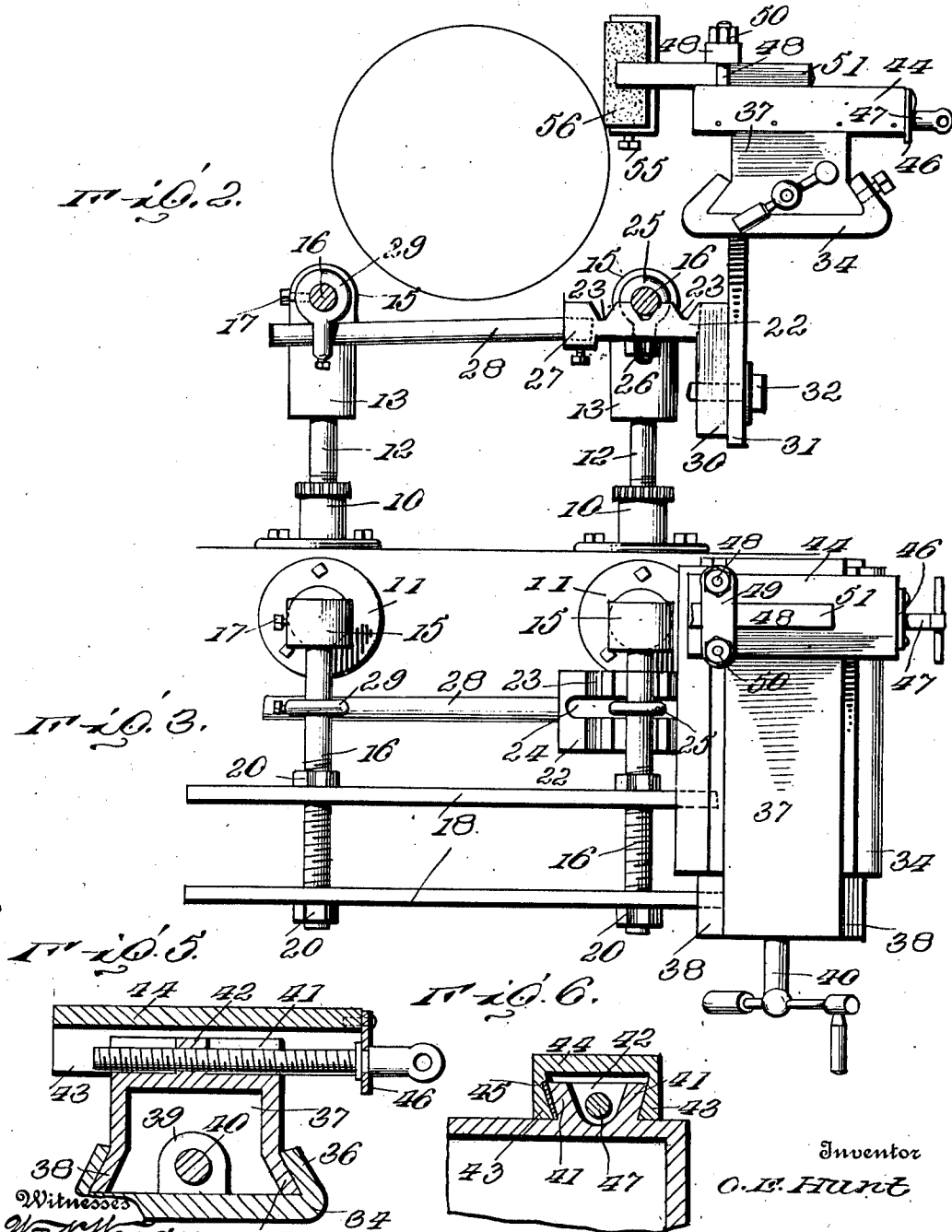
Attorneys

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UNITED STATES PATENT OFFICE.

OSMAN E. HUNT, OF EAGLE GROVE, IOWA.

TRUING-MACHINE.

991,996.

Specification of Letters Patent.

Patented May 9, 1911.

Application filed August 19, 1910. Serial No. 578,043.

To all whom it may concern:

Be it known that I, OSMAN E. HUNT, a citizen of the United States, residing at Eagle Grove, in the county of Wright and State of Iowa, have invented certain new and useful Improvements in Truing-Machines, of which the following is a specification.

This invention relates to commutator truing machines, and has for an object to provide a machine with an adjustable frame adaptable to various forms of dynamos and various sizes of commutators.

The invention has for another object an improved holder having an abrading stone which is adjustable not only longitudinally of the dynamo but also toward and from the center thereof. The holder is also provided with peculiar adjusting means for holding the abrading stone in various angles and for accommodating stones differing in length and thickness.

For a full understanding of the invention reference is to be had to the following description and accompanying drawing in which:—

Figure 1 is a perspective view of the complete machine, showing in dotted lines a dynamo to which the machine is applied; Fig. 2 is a side elevation, partly in section, of the improved carriage and its supporting mechanism; Fig. 3 is a top plan view of the machine; Fig. 4 is a detail perspective view of the holder for the grinding element. Fig. 5 is a detail sectional view through the transverse slide which supports the grinding element; and Fig. 6 is a detail sectional view taken at right angles to Fig. 5.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawing by the same reference characters.

Referring to the drawing the numerals 10 designate the bases of the frame of the truing machine which are in the form of internally threaded sleeves having enlarged flanges 11 at their lower ends for supporting the same. The flanges 11 are suitably apertured for the reception of retaining bolts to hold the bases 10 rigidly in position. A pair of uprights 12 are threaded in the upper ends of the bases 10 and carry sleeves 13 upon their upper ends. The sleeves loosely engage over the uprights 12 and are held adjustably thereon by set-screws 14. The sleeves 13 are provided upon their upper

ends with integral horizontal sleeves 15 receiving adjustably therethrough horizontal rods 16. Set-screws 17 pass through the sleeves and against the rod 16 to hold the same when adjusted.

Companion bars 18 are arranged in spaced relation upon the rods 16 and are provided with series of registering apertures 19 to loosely receive therethrough the rods 16. Binding nuts 20 are disposed in threaded relation upon the rod 16 and against the opposite sides of the companion bars 18 to hold the same rigidly when adjusted. The companion bars 18 engage against the opposite faces of the standards 21 of the dynamo and serve to brace the frame rigidly about the dynamo.

One of the rods 16 is provided with a head 22 of L-form having transverse grooves 23 in the upper face of its horizontal arm to receive therein the rod 16. A longitudinal slot 24 is formed centrally in the upper arm of the head 22 to receive an eye-bolt 25 carried upon the rod 16. A clamping nut 26 is carried upon the lower end of the eye-bolt and binds against the lower face of the head 22. The inner end of the head 22 terminates in a collar 27 adjustably receiving the transverse rod 28 passing across the frame and beneath the opposite rod 16. A clamp 29 is mounted upon the outer rod 16 to receive the outer end of the transverse rod 28. The opposite end of the head 22 carries a depending support 30 receiving against its outer face the shank 31 of the tool-carriage. A clamping bolt 32 passes through the shank 31 and the support 30 for holding the shank 31 when adjusted. The shank 31 is provided with the longitudinal slot 33 through which the clamping bolt 32 passes.

A guide 34 is mounted upon the upper end of the shank 31 and is in the form of an elongated plate having upwardly extending and slightly inturned flanges 36. The guide 35 is provided with an inverted U-slide 37 having outturned flanges 38 upon its lower end engaging beneath the inturned flanges 36. An ear 39 is formed upon the guide 35 to receive in threaded relation a feed-screw 40 rotatably disposed through the outer end of the slide 37 and is adapted to move the slide over the upper face of the guide 35. The slide 37 is provided upon its inner end and across its upper face with spaced bars 41 which are joined midway of their ends by an aper-

tured web 42. The outer edges of the bars 41 are undercut to receive the inturned flanges 43 of the transverse slide 44. A take-up plate 45 is disposed against one of the flanges 43 for sliding engagement against the adjacent bar 41. The outer end of the slide 44 carries a depending lug 46 through which is rotatably secured a feed-screw 47 passing in threaded engagement through the opening in the web 42. The inner end of the slide 44 carries a pair of spaced clamping bolts 48 upon the outer ends of which is loosely positioned a clamping bar 49. Clamping nuts 50 are carried upon the outer extremities of the bolts 48 and are adapted to move the clamping bar 49 toward the slide 44. The holder which is employed in conjunction with this mechanism comprises an elongated bar 51, being preferably of angular cross-section for engagement upon the upper face of the slide 44 and beneath the clamping bar 49. The bar 51 is provided with an offset arm 52 which is turned outwardly at its end in parallel relation to the extremity of the bar 51. A U-shaped plate 53 is carried across the offset arm 52 having its free ends extending outwardly in registration with the end of the bar 51. A bolt 54 passes through the central portion of the plate 53 and the offset arm 52 to hold the plate 53 in position. Set-screws 55 are carried through the arms of the plate 53 and the outer end of the bar 51 and extend inwardly therefrom to engage against the sides of the abrading block 56.

From the foregoing description it will be readily seen that the holder for the block 56 can be adjusted longitudinally upon the slide 44 so as to position the block 56 approximately as required. The tool-carriage, when operated by the feed-screws 40 and 47 is moved longitudinally against the commutator of the dynamo and also to and from the center thereof so as to insure the bearing of the block 56 against the commutator during the operation of the device. The set-screws 55 admit of the positioning of the blocks 56 varying in size, and also provides means whereby the block may be quickly detached or positioned as desired.

Having thus described the invention what is claimed as new is:—

1. A commutator truing machine including spaced uprights, horizontal rods adjustably mounted upon the uprights and extending outwardly therefrom, companion bars mounted upon the horizontal rods and engaging against the opposite faces of the companion bars, a head adjustably disposed

upon the rods, and a tool-carriage adjustably disposed upon the head.

2. A commutator truing machine including a pair of bases, uprights adjustably carried in the bases, sleeves mounted for adjustment upon the upper ends of the uprights, horizontal rods adjustably mounted upon the sleeves and extending outwardly therefrom, a head carried by one of the rods, a transverse rod carried by the head and extending beneath the opposite one of the horizontal rods, a clamp carried by the opposite rod and engaging the end of the transverse rod, companion bars adjustably mounted upon the outer ends of the horizontal rods, and a tool-carriage mounted upon the head.

3. A commutator truing machine including spaced uprights, horizontal rods outwardly extending from the upper ends of the uprights, a head carried upon the horizontal rods, a shank adjustably disposed upon the head, a guide formed upon the upper end of the shank, a slide mounted for longitudinal movement upon the guide, a transverse slide mounted across the outer end of the first slide, and a tool-holder adjustably disposed upon the transverse slide.

4. A commutator truing machine including a frame for engagement about the commutator and a dynamo, a guide carried by the frame in longitudinal alinement at one side of the commutator, a slide mounted for longitudinal movement upon the guide, a transverse slide carried upon said first slide for movement toward and from the periphery of the commutator, and a tool-carriage adjustably disposed upon said transverse slide.

5. A commutator truing machine including a frame, a guide arranged upon the frame in longitudinal alinement with the commutator of a dynamo, a longitudinal slide mounted upon the guide, spaced transverse bars formed upon the upper face of said longitudinal slide and having undercut outer edges, a transverse slide mounted upon said longitudinal slide and having inturned flanges engaging beneath the undercut edges of the transverse bars, operating means carried by the slides for moving the same, and a tool-holder carried for adjustment upon said transverse slide.

In testimony whereof I affix my signature in presence of two witnesses.

OSMAN E. HUNT. [L. s.]

Witnesses:

SYLVESTER FLYNN,
J. S. PAINE.