

M. J. NEUMUTH.
ATTACHMENT FOR FLAT SURFACE GRINDING MACHINES.
APPLICATION FILED JAN. 29, 1910.

975,785.

Patented Nov. 15, 1910.

2 SHEETS—SHEET 1.

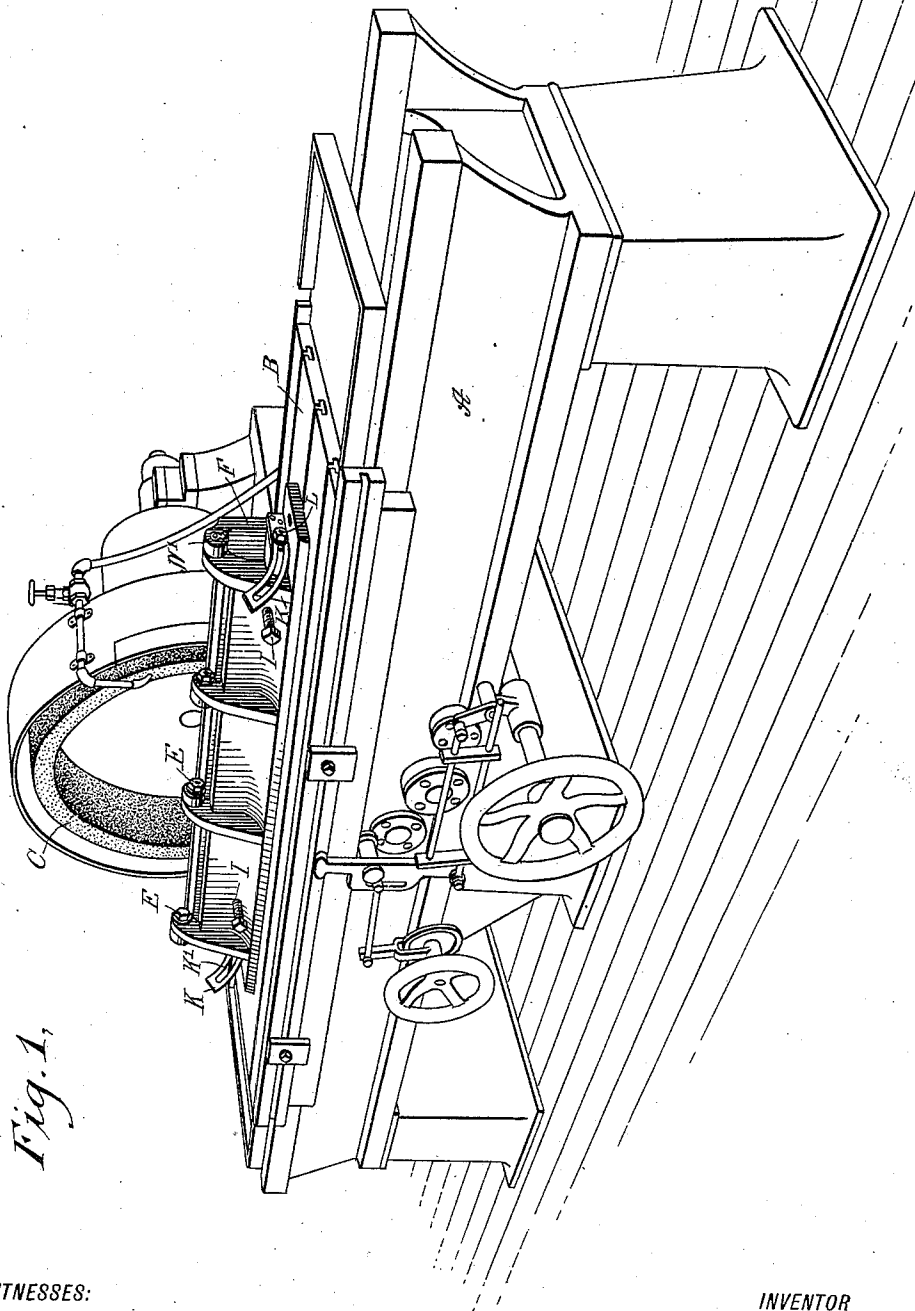


Fig. 1.

WITNESSES:

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INVENTOR

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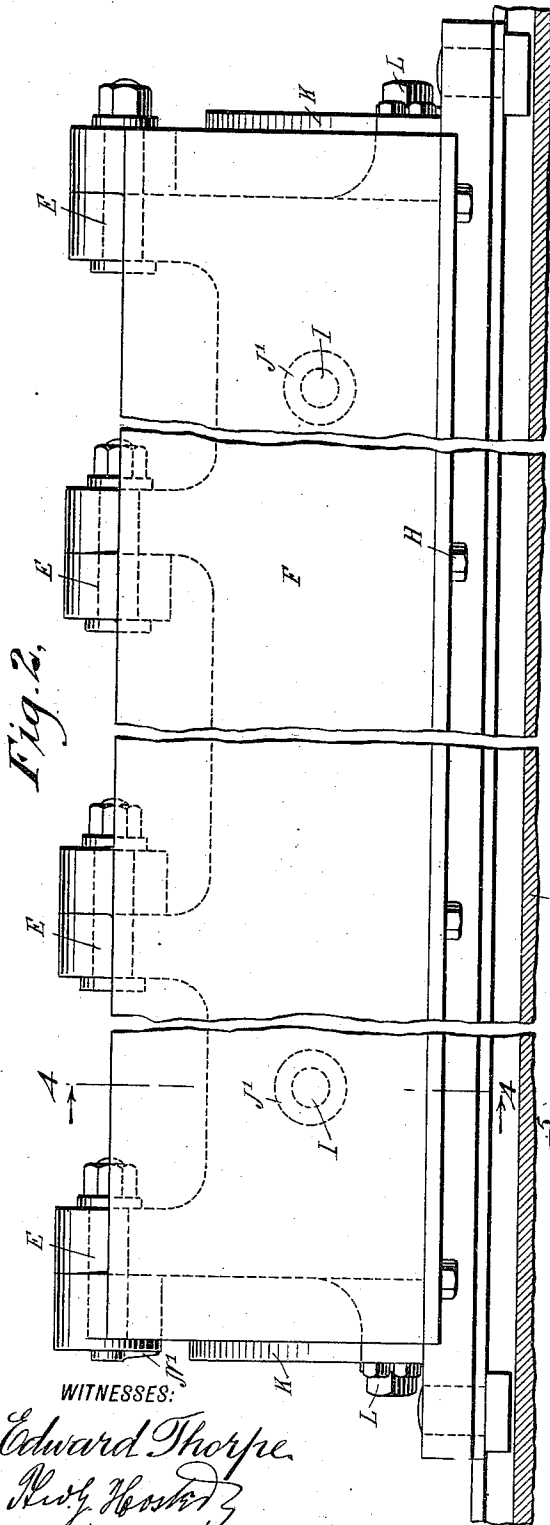
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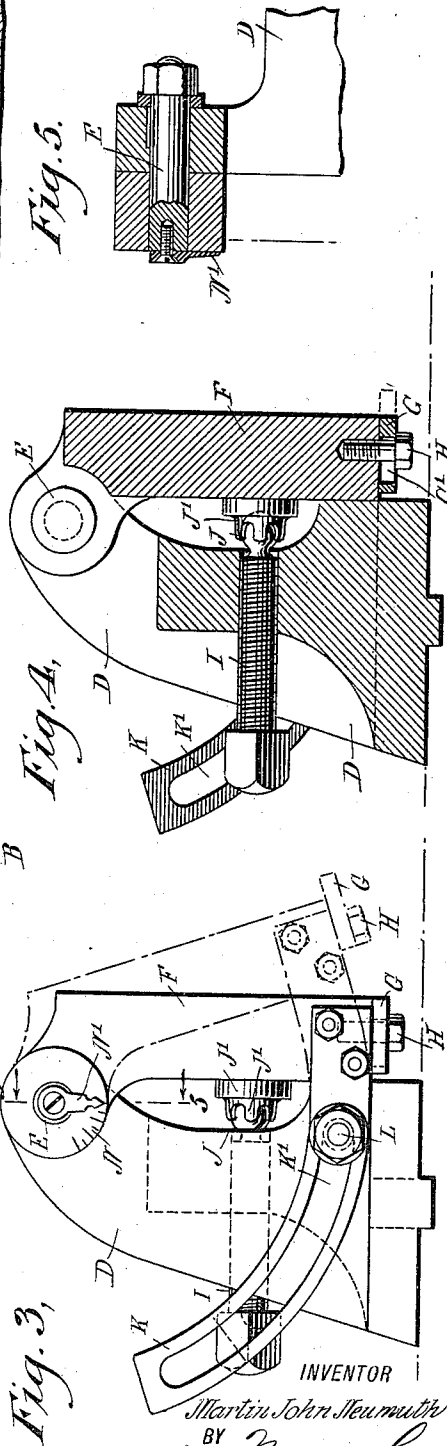
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

MARTIN JOHN NEUMUTH, OF NEW YORK, N. Y.

ATTACHMENT FOR FLAT-SURFACE GRINDING-MACHINES.

975,785.

Specification of Letters Patent.

Patented Nov. 15, 1910.

Application filed January 29, 1910. Serial No. 540,786.

To all whom it may concern:

Be it known that I, MARTIN JOHN NEUMUTH, a citizen of the United States, and a resident of the city of New York, Jamaica, borough of Queens, in the county of Queens and State of New York, have invented a new and Improved Attachment for Flat-Surface Grinding-Machines, of which the following is a full, clear, and exact description.

The invention relates to grinding machines having a rotary grinding cup wheel and a carriage supporting the article to be ground and mounted to travel across the face of the wheel.

The object of the invention is to provide a new and improved attachment for flat surface grinding machines of the type referred to, and whereby the articles to be ground can be conveniently held in place and set to any desired angle relative to the face of the grinding wheel.

For the purpose mentioned, use is made of a support adapted to be fastened to the traveling carriage of the grinding machine, and on the said support is mounted to swing a face plate, for supporting the article to be ground, to swing the article into the desired angular position relative to the face of the grinding wheel.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of a flat surface grinding machine provided with the attachment; Fig. 2 is an enlarged front face view of the attachment; Fig. 3 is an end elevation of the same; Fig. 4 is a transverse section of the same on the line 4—4 of Fig. 2; and Fig. 5 is a sectional front view of part of the improvement on the line 5—5 of Fig. 3.

On the bed A, of a flat surface grinding machine is mounted to reciprocate the carriage B, for moving the article to be ground across the grinding face of the cup-shaped grinding wheel C, mounted to rotate in the usual manner.

On the carriage B is adjustably and removably secured a support D, extending lengthwise of the carriage, and provided at the upper end with aligned pivots E, on which is mounted to swing the upper end of a face plate F, adapted to support the ar-

ticle to be carried past the face of the rotary grinding wheel C. On the bottom of the face plate F is arranged a support G, in the form of a plate, having transverse slots G' through which extend bolts H for securing the support in position on the bottom of the face plate F, either in a retracted or extended position, as will be readily understood by reference to the full and dotted lines shown in Figs. 3 and 4.

In the support F are mounted to screw transverse adjusting screws I, which are each connected at their inner ends by a ball and socket joint J, J' with the rear of the face plate F, so that when the adjusting screws I are turned the face plate F is given a swinging movement, so as to bring the face of the face plate F and the article supported thereon into the desired angular position relative to the grinding face of the wheel C. The ball J of the ball and socket joint is mounted loosely on the inner end of the corresponding screw I, while the socket J' is fastened to the back of the face plate F. In order to lock the face plate F securely in position after it is moved into the desired angular position, use is made of rearwardly-extending arms K, bolted or otherwise fastened to the ends of the face plate F, and each of the arms K is provided with a segmental slot K' engaged by a clamping bolt L held on the corresponding end of the support D. Thus after the face plate F has been adjusted to the desired angular position, by turning the adjusting screws I, as before explained, the nuts of the clamping bolts L are screwed up, to clamp the arms K against the support D, thus locking the face plate F in the adjusted position.

In order to indicate the degree of the angle between the face of the face plate and the grinding face of the grinding wheel C, the following arrangement is made: On one end of the face plate F, at the pivotal portion, is formed a graduation N, indicating degrees (see Fig. 3), on which indicates a pointer N' fixed on the corresponding pivot pin E, held against turning in the support D, as will be readily understood by reference to Fig. 5. Now when the face plate F is moved into an angular position, its graduation N moves under the pointer N', so that the latter indicates the working angle between the face plate F and the grinding face of the grinding wheel C.

The attachment shown and described is

very simple and durable in construction and can be readily placed in position on the carriage B or removed therefrom when not in use.

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

1. An attachment for grinding machines having a revoluble cup wheel and a carriage
10 mounted to travel across the face of the wheel, comprising a vertical support adapted to be fastened to the carriage, a face plate pivoted at its upper end to the upper
15 end of the said support to hold the article to be ground by the said wheel at a desired angle to the grinding face of the wheel, means for adjusting the face plate toward and from the support, means for locking the face plate in the adjusted position on the
20 said support, and a pointer and scale for indicating the angular position of the said face plate relative to the grinding surface of the grinding wheel.

2. An attachment for grinding machines
25 having a revoluble cup wheel and a carriage mounted to travel across the face of the wheel, comprising a vertical support adapted to be fastened to the carriage, a face plate pivoted at its upper end to the upper end of
30 the said support to hold the article to be

ground by the said wheel at a desired angle to the grinding face of the wheel, a slotted foot engaging the lower free end of the face plate, and a screw passing through the slot of the foot into the face plate, whereby the
35 foot may be held projected beyond the face plate or flush therewith.

3. An attachment for grinding machines having a revoluble cup wheel and a carriage
40 mounted to travel across the face of the wheel, comprising a vertical support adapted to be fastened to the carriage, a face plate pivoted at its upper end to the upper end of the said support to hold the article to be ground by the said wheel at a desired angle
45 to the grinding face of the wheel, adjusting screws screwing in the said support, a ball and socket connection between the end of each bolt and the said face plate, arms having segmental slots and attached to the ends
50 of the face plate, and clamping bolts on the said support and engaging the said arms.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses:

MARTIN JOHN NEUMUTH.

Witnesses:

H. S. MORAN,
H. J. CLARKE.