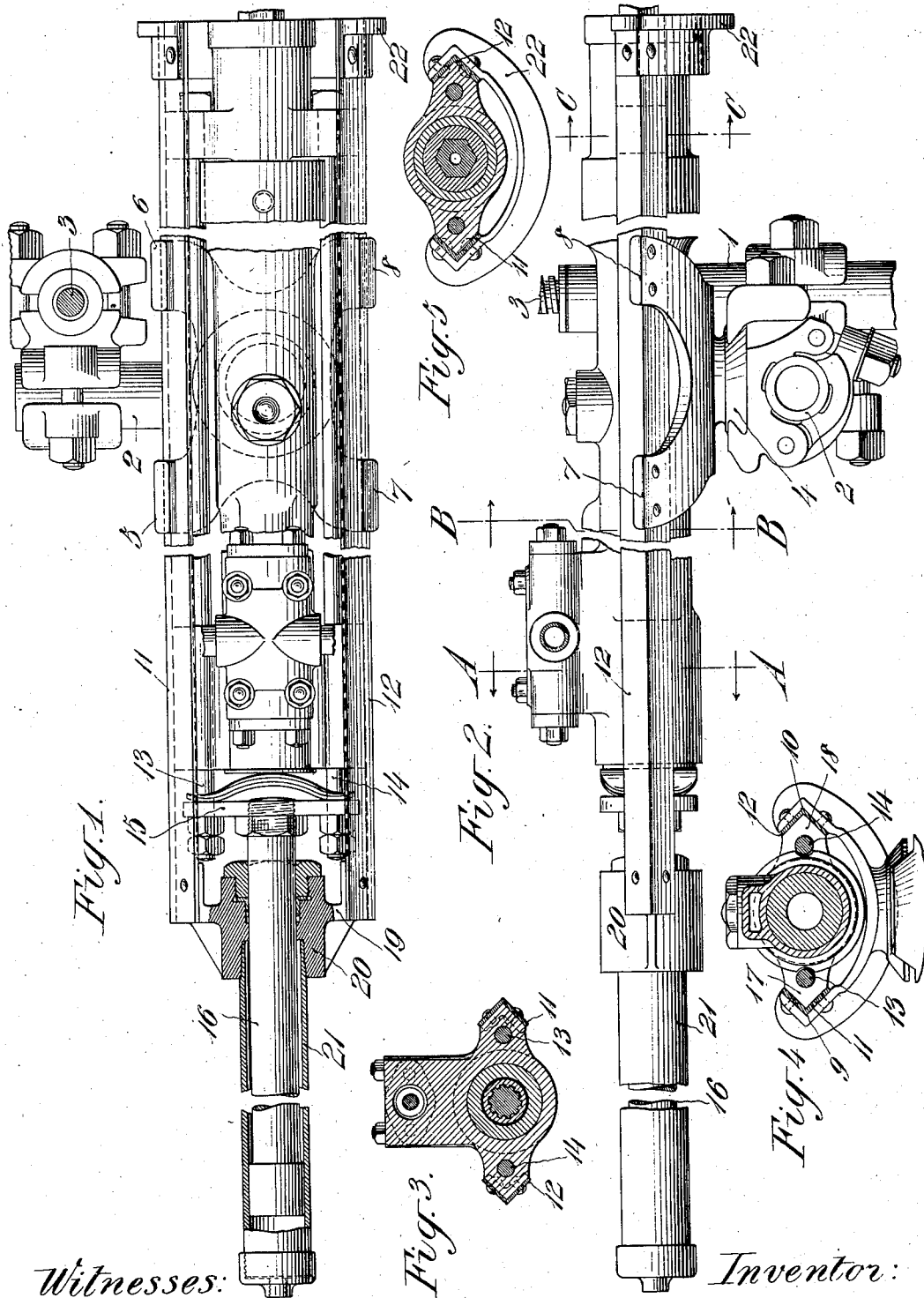


W. PRELLWITZ.  
SUPPORT FOR MINING TOOLS OR MACHINES.  
APPLICATION FILED JUNE 15, 1909.

1,027,759.

Patented May 28, 1912.



Witnesses:  
M. G. Gentry  
F. George Barry

Inventor:  
William Prellwitz  
by his attorneys  
Brown & Howard

# UNITED STATES PATENT OFFICE.

WILLIAM PRELLWITZ, OF EASTON, PENNSYLVANIA, ASSIGNOR TO INGERSOLL-RAND COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

SUPPORT FOR MINING TOOLS OR MACHINES.

1,027,759.

Specification of Letters Patent.

Patented May 28, 1912.

Application filed June 15, 1909. Serial No. 502,253.

*To all whom it may concern:*

Be it known that I, WILLIAM PRELLWITZ, a citizen of the United States, and resident of Easton, in the county of Northampton and State of Pennsylvania, have invented a new and useful Support for Mining Tools or Machines, of which the following is a specification.

My invention relates to a support for a mining tool or machine and more particularly to a support for a mining tool or machine which is supplied with an air feed and in which the body of the tool or machine does not rock or oscillate but in which the steel and its chuck are arranged to oscillate within the body of the tool or machine.

In the accompanying drawings, Figure 1 is a view in top plan, partly in section, of a mining tool or machine embodying my invention. Fig. 2 is a view of the same in side elevation, Fig. 3 is a transverse section in the plane of the line A—A Fig. 2. Fig. 4 is a transverse section in the plane of the line B—B, Fig. 2, and Fig. 5 is a transverse section in the plane of the line C—C, Fig. 2.

The particular tool or machine, exclusive of the air feed, which I have chosen to illustrate my invention, is quite similar to that shown, described and claimed in my pending application Serial No. 488,720, filed April 8, 1909, and which consists, briefly stated, of a hammer drill in which the tool carrying chuck is mechanically rotated step by step as the drill is fed forward by air pressure.

My present invention contemplates a skeleton support for the tool or machine, comprising ways along which the tool or machine may slide, a cross head connecting the ways and forming a support for the air feed cylinder and through which the air feed piston attached to the drill, passes into the air feed cylinder, and a bracket for supporting and mounting the ways upon a suitable column or branch support attached to a column. In the present instance, the supporting bracket is shown as mounted upon a branch support connected to a column. The column is denoted by 1, the branch support clamped to the column, is denoted by 2 and the exteriorly screw-threaded extensible section of the column, by 3.

The supporting bracket comprises a trunk terminating in a flattened cone 4, and arms extending upwardly and outwardly from

the trunk, in the present instance, four arms, denoted by 5, 6, 7 and 8. These arms are provided at or near their ends with V-shaped recesses 9 and 10, for the reception of angle-iron ways 11 and 12, V-shaped in cross section. These angle-iron ways 11 and 12 may be extended in opposite directions from the supporting bracket to any desired and practical extent to increase the extent of feeding movement without adding any great weight to the tool or machine as a whole.

The several parts which make up the body of the tool or machine, are held in assembled adjustment as fully described in the pending application referred to, by means of tie-rods 13, 14, the free ends of which are connected by a yoke piece 15 and to this yoke piece 15, one end of the air feed piston 16 is fixed.

The body of the machine is provided with V-shaped guides 17, 18, along its sides, which fit the V-shaped ways 11 and 12 to support the body of the tool or machine in sliding adjustment along the ways.

The ways 11 and 12 are connected at one end by a cross head 19 provided with a central hub or sleeve 20 in the outer end of which the air feed cylinder 21 is fixed. The air feed piston 16 extends through the hub or sleeve 20 into the air feed cylinder. The opposite ends of the ways 11 and 12 are also connected by a curved yoke piece 22.

In operation, air under pressure is admitted from a suitable source, not shown, into the end of the air feed cylinder 21, and its pressure acts upon the piston 16 to force the body of the tool or machine along the ways 11 and 12, to feed the steel to its work.

The skeleton support consisting of the bracket and ways, is light and efficient and forms a convenient support for the air feed cylinder.

What I claim is:

1. A skeleton frame for supporting a mining tool or machine in sliding and non-rotatable adjustment, said frame comprising a bracket, angle iron ways secured to the bracket, a cross head connecting the ways at one end, an air feed cylinder fixed to the cross head and an air feed piston fixed to the tool or machine.

2. A mining tool or machine composed of sections, tie-rods for uniting the sections, a yoke connecting the tie-rods, an air feed

piston fixed to the yoke, ways along which the tool or machine is fitted to slide, a cross head connecting the ways and an air feed cylinder fixed to the cross head.

- 5 3. A mining tool or machine composed of sections provided with guides oppositely disposed along their sides, tie-rods for uniting the sections, a yoke connecting the tie-rods, an air feed piston fixed to the yoke, 10 angle-iron ways for receiving the guides at the sides of the body of the tool or machine, a cross head connecting the ways and an air feed cylinder fixed to the cross head.

- 15 4. A skeleton frame for supporting a mining tool or machine in sliding and non-rotatable adjustment, the tool or machine including an air feed cylinder and its piston,

said frame comprising a bracket, angle-iron ways secured in the bracket, a cross head connecting the ways at one end and a 20 yoke connecting the ways at the opposite end, the said cross-head being provided with a sleeve for the reception of the air feed cylinder and the said yoke extending out of a direct line between the ways. 25

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this twelfth day of June 1909.

WILLIAM PRELLWITZ.

Witnesses:

F. GEORGE BARRY,  
C. S. SUNDGREN.