

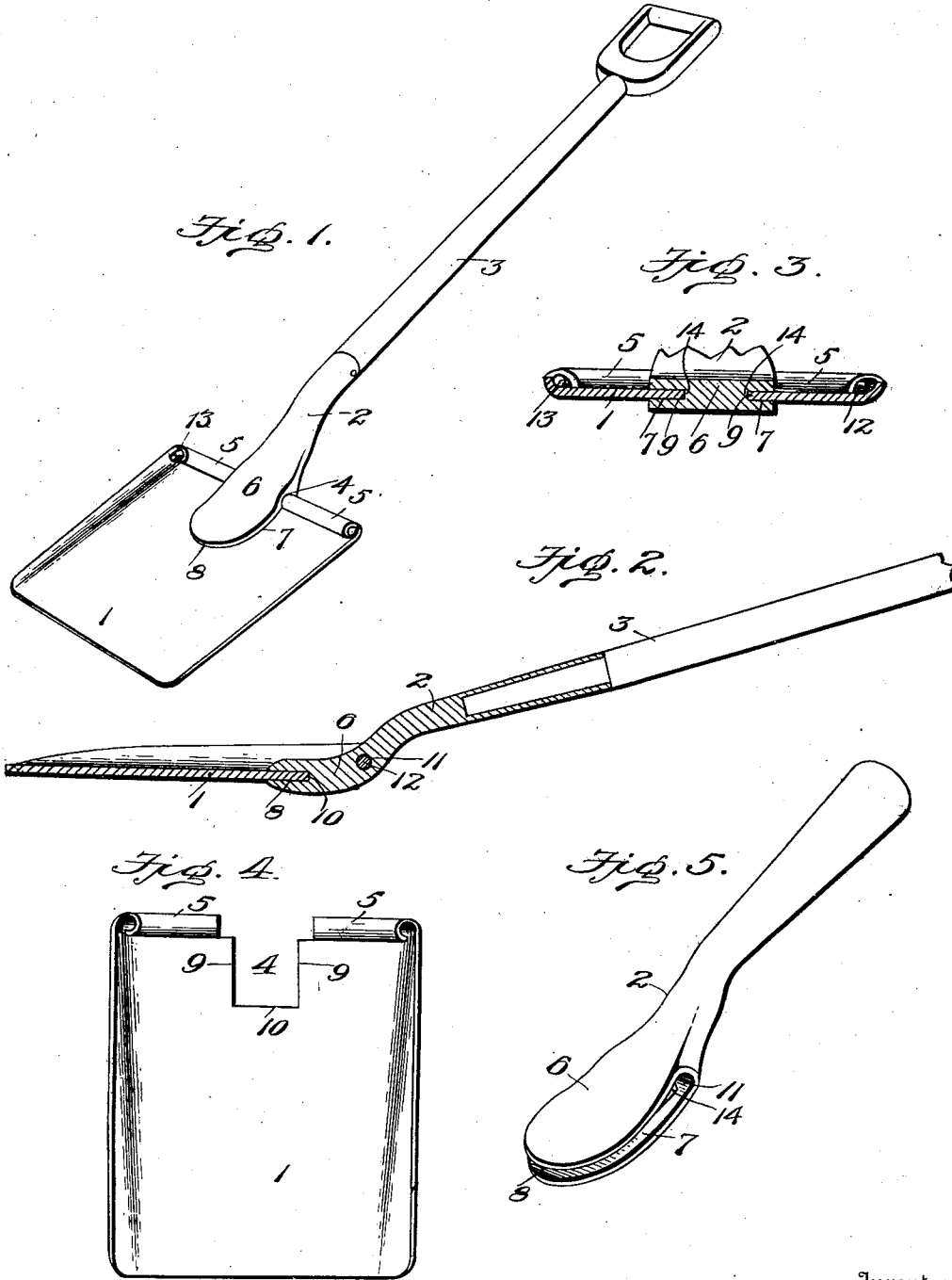
No. 628,202.

Patented July 4, 1899.

G. LAWS.  
SHOVEL.

(Application filed Mar. 14, 1899.)

(No Model.)



Witnesses  
*E. Hunt.*  
*C. Wilson*

Inventor  
 George Laws.  
 by *A. B. Wilson & Co.*  
 Attorneys

# UNITED STATES PATENT OFFICE.

GEORGE LAWS, OF PHILIPSBURG, PENNSYLVANIA.

## SHOVEL.

SPECIFICATION forming part of Letters Patent No. 628,202, dated July 4, 1899.

Application filed March 14, 1899. Serial No. 709,102. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE LAWS, a citizen of the United States, residing at Philipsburg, in the county of Centre and State of Pennsylvania, have invented certain new and useful Improvements in Shovels; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention has relation to shovels, and more particularly to shovels for miners' use.

The object of the invention is to provide a shovel the blade of which may be easily and quickly removed for the purpose of replacing it with one of a different shape or character, as the occasion may require.

With this object in view the invention consists in certain features of construction and combination of parts which will be hereinafter more fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of my improved shovel. Fig. 2 is a longitudinal sectional view. Fig. 3 is a cross-sectional view taken through the head of the handle-socket and the shovel. Fig. 4 is an elevational view of the blade removed, and Fig. 5 is a perspective view of the handle-socket.

In the drawings, 1 denotes the shovel-blade, 2 the handle-socket, and 3 the handle. The shovel-blade is formed in its rear edge with a rectangular recess 4 and with alined sleeves 5. The handle-socket is provided with a head 6, having a longitudinal marginal groove 7 and an end groove 8, the groove 7 being adapted to receive the edges 9 and the recess 4 and the groove 8 to receive the edge 10 and said recess 4.

11 denotes an eye which extends transversely through the head, and when the blade is in position in the head the eye is alined with the sleeves 5 of the blade. Through the sleeves and the eye is inserted a pin 12, which is preferably formed with an offset head 13, which after the pin has been inserted through the sleeves 9 is turned down to abut against the side edge of the shovel, and thus be prevented from becoming accidentally displaced.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of the invention will be readily understood without requiring an extended explanation.

It is apparent that all strain is removed from

the pin by reason of the edges 9 of the blade engaging the longitudinal shoulders 14 of the head formed by the groove 7, while a longitudinal displacement of the blade with the shovel is prevented by the pin 12.

When it is desired to remove the shovel-blade for the purpose of replacing it with one of a different style, shape, or size, the offset end of the pin 12 is turned up from engagement with the side edges of the shovel-blade and then withdrawn from the sleeves of the blade and eye of the head, thus permitting the blade to be easily removed and another one substituted.

It will of course be understood that various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

1. In a shovel, the combination of the blade, provided with sleeves at its rear end, and a shank having a head to engage said blade, and provided with an eye registering with said sleeves, and a pin inserted through the sleeves and the eye, substantially as set forth.

2. In a shovel, the combination of the blade, provided with sleeves at its rear end, a shank having a head to engage said blade, and provided with an eye registering with said sleeves, and a pin inserted through the sleeves and the eye, and provided with an offset end, adapted to be turned down against the side of the shovel, to prevent its accidental displacement, substantially as set forth.

3. In a shovel, the combination of the blade, provided with a recess in its rear end and alined sleeves, a shank provided with a head formed with marginal grooves to embrace the side edges of the recess, and formed with a transverse eye which registers with the sleeves, and a pin inserted through said eye and sleeves, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE LAWS.

Witnesses:

JENNIE LAWS,  
G. G. POTTS GROVE.