

(No Model.)

A. SCHNELL.  
SPIRIT LEVEL ATTACHMENT.

No. 517,935.

Patented Apr. 10, 1894.

FIG. 1.

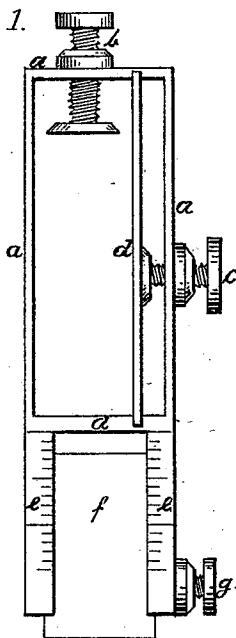


FIG. 2.

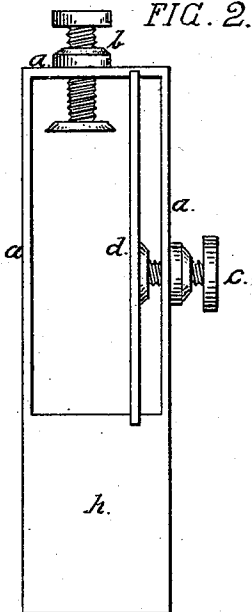


FIG.

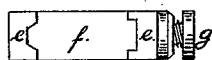
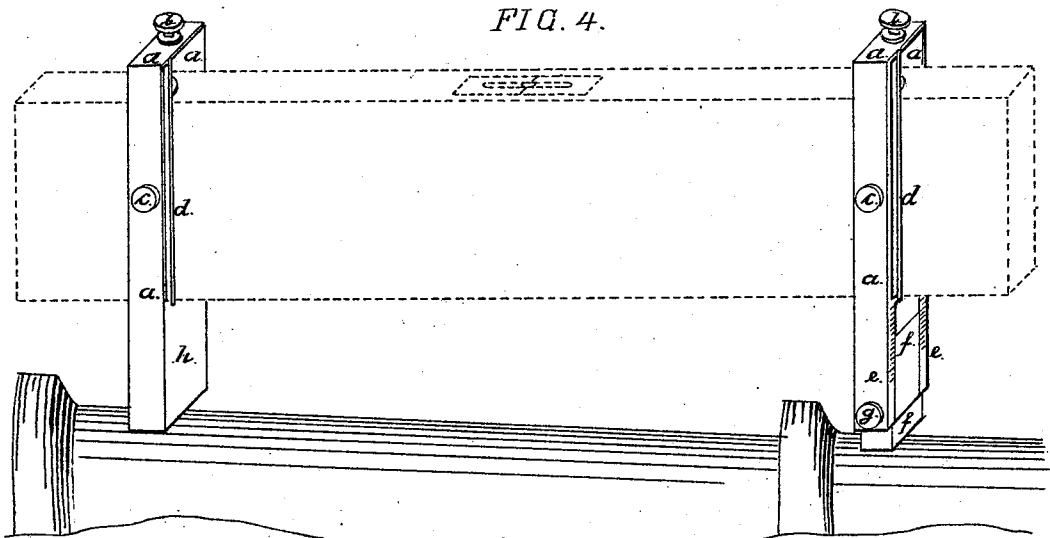


FIG. 4.



Witnesses.

A. W. Bockel  
A. W. Walliker

Inventor.

August Schnell.

# UNITED STATES PATENT OFFICE.

AUGUST SCHNELL, OF CLINTON, IOWA.

## SPIRIT-LEVEL ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 517,935, dated April 10, 1894.

Application filed August 21, 1893. Serial No. 483,707. (No model.)

*To all whom it may concern:*

Be it known that I, AUGUST SCHNELL, a citizen of the United States, residing at Clinton, in the county of Clinton and State of Iowa, have invented a new and useful Attachment to Spirit-Levels, of which the following is a specification.

My invention relates to improvements on attachments to spirit levels, to be used especially for laying gas and sewer pipes, &c., and the objects of my improvement are first, to bring any spirit-level, by fastening the attachments to the same, on a solid footing, high enough above the respective pipes, so that the bells on sewer pipes or any unevenness on the surface of the pipes will not interfere with the use of the level, second, to have the footing of the attachments adjustable, so that pipes, &c., can be laid to any required grade by only setting the adjustable part of the attachment-footing and third, to have the attachments fastened in a safe and solid way to any spirit level of usual size without doing any damage to the level. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figures 1 and 2 are vertical sections of both attachments. Fig. 3 shows the horizontal cut of the adjustable footing on one attachment and Fig. 4 shows the attachments (two pieces) fastened to a spirit level so as to be used for laying sewer pipes.

Similar letters refer to similar parts throughout the several views.

The letter *a* designates a rectangular frame as of metal having through its upper side a set screw *b* with a swiveled button at its lower end whereby one frame of this construction may be clamped vertically upon each end of an ordinary spirit level as shown in Fig. 4. Sliding laterally within the frame is an upright plate *d*, and a set screw *c* takes through one side bar of the frame and is swivelly connected with said plate; by which means the frame can be detachably clamped horizontally to its end of the spirit level. At its lower end one frame is continued downward in side strips *e* preferably provided on one face with scales as shown in Fig. 1; and the inner edges of these strips are grooved as seen in Fig.

3 so as to receive tongues at the edges of a sliding block *f* which fits between them and is held in adjusted position therein by a set screw *g*, as will be clearly understood. The lower end of the other frame *a* is continued into a solid block *h* of the same length as the side strips *e* of the first mentioned frame. All parts are preferably of light metal, such as brass, and of a proper size to be readily attached to a spirit level of the ordinary proportions.

In use, this attachment is applied to the level as indicated in Fig. 4, and the sliding block *f* is adjusted by the scale so as to give the proper inclination from a horizontal line of an article (such as a sewer pipe as shown) upon which the lower ends of the two blocks *h* and *f* shall rest. It will be obvious that after the sliding block *f* has been dropped to its lowest position, a greater degree of inclination can be indicated by this device by setting the two attachments nearer to each other on the spirit level; and this is an important feature of my invention which is gained through having the attachments removably and adjustably connected with the spirit level instead of fixedly located at the extremities thereof as heretofore.

What is claimed as new is—

1. An attachment for spirit levels consisting of an open frame, a set screw through the top of the frame, a horizontally sliding plate within the frame, a set screw through one side of the frame swivelly connected with said plate, strips depending from said frame and provided with a gage, a block sliding between them, and a set screw through one strip for locking the block in adjustable position, as and for the purpose set forth.

2. An attachment for spirit levels consisting of an open frame, means substantially as described for detachably and adjustably connecting said frame with the spirit level, strips depending from said frame and having grooves on their inner edges, one strip being provided with a scale, a block between said strips having tongues fitting said grooves, and a set screw through one strip for fastening the block in adjusted position, as and for the purpose set forth.

3. An attachment for spirit levels comprising two members, each consisting of an open frame adapted to surround one end of the level, and set screws through the top and one side of each frame for detachably and adjustably connecting it with said level; one frame having a solid block at its lower end, and the other frame having at its lower end depending strips, and a sliding block adjustably located between them, all as and for the purpose set forth. 10

AUGUST SCHNELL.

Witnesses:

A. W. BOCKEL,

A. W. WALLIKER.