S. B. COATES.

FENCE-BUILDERS' GAGE.

No. 184,459. Patented Nov. 21, 1876.

FIG. 2.

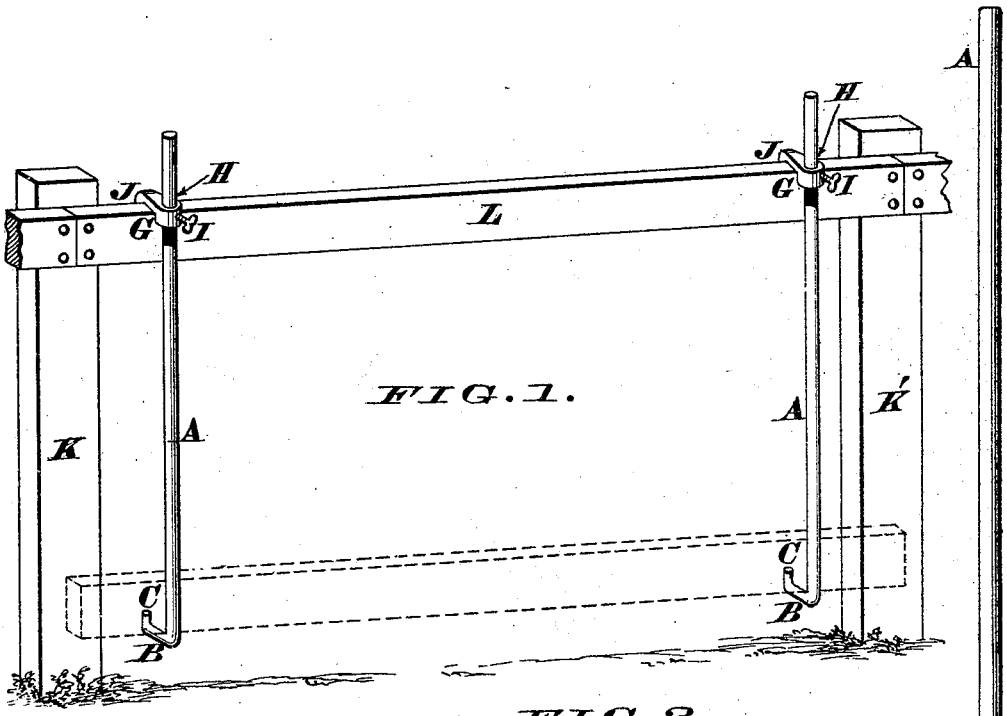


FIG. 1.

FIG. 3.

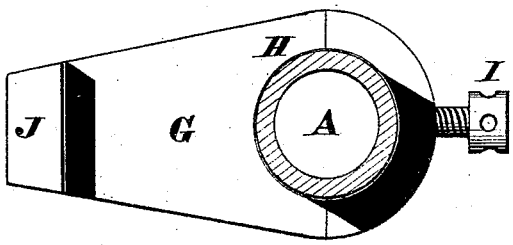


FIG. 4.

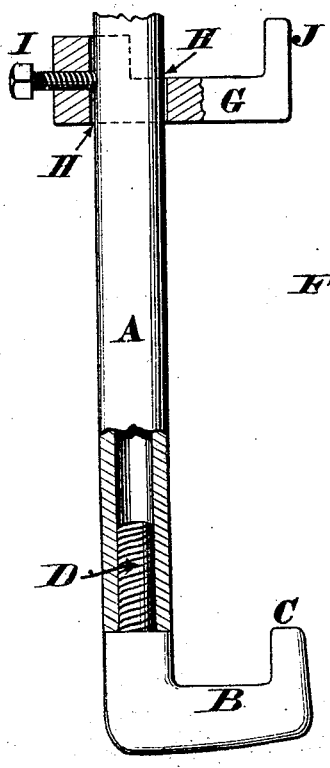
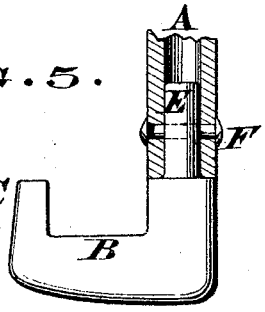
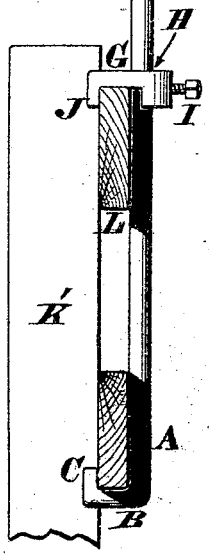


FIG. 5.





Sherwood B. Coates
by James N. Layman
his Attorney.

Attest.
S. M. Bond
J. W. Ring.

UNITED STATES PATENT OFFICE.

SHERWOOD B. COATES, OF MOUNT AIRY, OHIO.

IMPROVEMENT IN FENCE-BUILDERS' GAGES.

Specification forming part of Letters Patent No. **184,459**, dated November 21, 1876; application filed July 20, 1876.

To all whom it may concern:

Be it known that I, SHERWOOD B. COATES, of Mount Airy, Hamilton county, Ohio, have invented a new and useful Fence-Builders' Gage, of which the following is a specification:

This invention relates to that class of devices which are employed for supporting boards preparatory to the latter being nailed to the posts, and my gage is constructed so as to insure all of the boards being applied parallel with the top one of each panel of the fence, and at any desired distance from said upper one, or from each other.

My gage consists essentially of a rod, bar, or shaft whose length is about equal to the height of an ordinary fence—say, four and one-half feet—and said bar may be composed either of cast or wrought metal; but I prefer to construct it of gas-pipe, so as to combine strength with lightness, as weight and bulkiness are serious objections to the use of such implements. The lower end of this shaft has cast with it, or otherwise secured thereto, a hook-shaped termination or stirrup for supporting the boards that are to be nailed to the fence-posts. Furthermore, this shaft is furnished with a shiftable rest or gage, that is maintained at any desired distance along said shaft by means of a set-screw, or any other suitable retaining device. This slide or gage is adapted to rest upon the upper surface of the top board of a fence-panel, and by properly adjusting said shiftable device the spaces between the various parallel boards can be regulated with the utmost nicety.

Having thus indicated the leading features of my invention, I will now proceed to give a detailed description of the device, and also explain more fully the manner of using it.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view, showing my gage adjusted for the lowermost board of a fence-panel. Fig. 2 is a vertical section, showing the gage set for the board immediately beneath the top one. Fig. 3 is a transverse section of the device. Figs. 4 and 5 are sectional views of modifications of the stirrup.

The principal member of my gage consists of a straight shaft, A, of any suitable shape in transverse section, and from four to five feet in length.

This shaft may be composed of any suitable material; but I prefer to construct it of gas-pipe about one-half or five-eighths of an inch in diameter, as such a shaft is stiff enough, while at the same time it is not too heavy and unwieldy. The lower end of this shaft has applied to it in any suitable manner a stirrup, B, having an upturned lug or lip, C, which prevents boards slipping off of said stirrup B. This stirrup may be cast with shaft A, when the latter is composed of cast metal; but when said shaft is constructed of gas-pipe the lower end of the pipe may be heated and bent into the proper hook-shaped termination.

As represented in Fig. 4, the stirrup is shown as having a screw-threaded shank, D, cast with it, which shank engages with the female screw of tubular shaft A. In Fig. 5 the hook has an unthreaded stem, E, that may be secured within the shaft with a transverse pin or rivet, F; or, if preferred, said shaft may be shrunk upon this smooth stem.

G represents a slide, having an eye, H, to admit shaft A, and a set-screw, I, or equivalent device, to maintain said slide at any desired position along said shaft. Furthermore, said slide may be furnished with a lip or down-turned lug, J, to engage behind that board which supports the entire device, as shown in Fig. 2.

When the boards are even, and not much bent or warped, this lug is not needed, and the slide is then inverted so as to present the lug upwardly, as seen in Fig. 4. In case the boards should be much warped, it is preferred to turn the slide over in such a manner as to present the lug J, downwardly, and thereby prevent shaft A dropping off of the fence.

The manner of using my gage is as follows: The posts K K′ are first set in the ground, and the upper course of boards L is then nailed to said posts in the usual manner, this course being carried along the entire stretch of fence; after which the gage is brought into service. Presuming it is desired to locate the lowermost course of boards a distance—say, of six inches—above the ground, the builder has simply to rest the slide G on top of upper

board L, unslacken set-screw I, and drop shaft A until its bearing B C is at the proper elevation, when said screw is tightened so as to prevent any further shifting of said shaft.

As two of my gages are necessary, the second one is adjusted in a precisely similar manner, and both are then applied upon a single panel of fence, as represented in Fig. 1. The gages are located as near the posts K and K′ as may be most convenient, and the bottom board is then supported by means of the two hook-shaped stirrups. The board is then sawed to the proper length, and at once securely nailed in position, no time being lost by the carpenter in measuring to determine the height of said board. The lowermost board of one panel being thus secured in position, the two gages are shifted to the adjoining panel, and the above-described operations of sawing and nailing the contiguous lowermost board are repeated. These operations are carried on until every panel of the fence has had its bottom boards secured in position. Shaft A is now shifted upwardly so as to afford the desired space between the lowermost board and the one immediately above it, after which the second course of boards is attached to the various posts of the fence.

By repeating these operations as often as may be necessary, the fence is soon built in the most uniform manner, all of the boards being perfectly parallel with the upper ones. In addition to this advantage, the work is accomplished very expeditiously, and of course with corresponding economy.

I am aware that fence-gages are not new implements, as several such devices are now in limited use.

I claim as my invention—

1. A fence-builders' gage consisting essentially of a bar provided at its lower end with a hook-shaped support for the boards, said bar being adjusted and secured within a slide adapted to rest upon the upper boards of a fence, substantially as herein described.

2. The combination of straight bar A, hook-shaped termination B C, adjustable slide G H, and retaining device I, or its equivalent, substantially as herein described, and for the purpose set forth.

3. The combination of straight bar A, stirrups B C, retaining device I, and adjustable slide G H, which latter is provided with a lip, J, substantially as herein described, and for the purpose stated.

In testimony of which invention I hereunto set my hand.

SHERWOOD B. COATES.

Witnesses:

JAMES H. LAYMAN,

L. H. BOND.