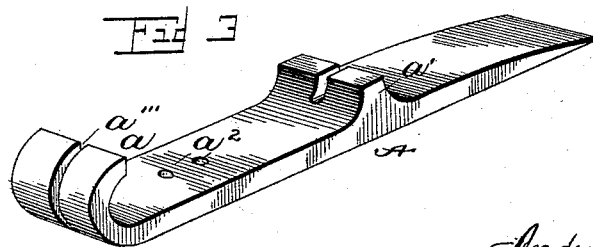
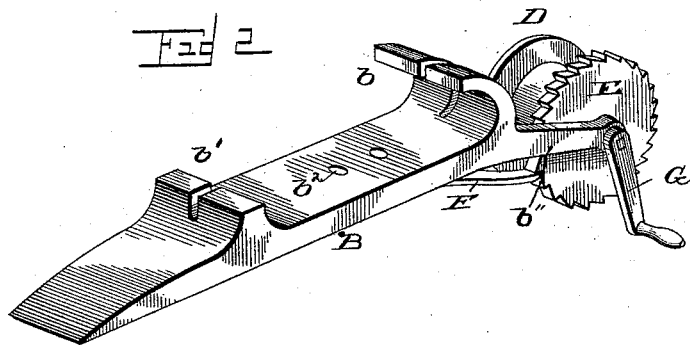
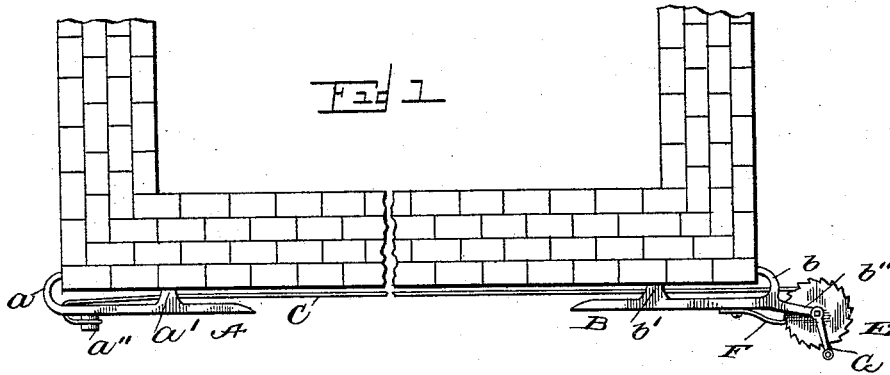


(No Model.)

A. S. SNYDER.
GAGE LINE HOLDER.

No. 492,636.

Patented Feb. 28, 1893.



Witnesses
John D. Davis
John Shaw

Andrew S. Snyder
Inventor

By *Charles J. Stockman*
his Attorney

UNITED STATES PATENT OFFICE.

ANDREW S. SNYDER, OF HOMESTEAD, PENNSYLVANIA.

GAGE-LINE HOLDER.

SPECIFICATION forming part of Letters Patent No. 492,636, dated February 28, 1893.

Application filed August 18, 1892. Serial No. 443,420. (No model.)

To all whom it may concern:

Be it known that I, ANDREW S. SNYDER, a citizen of the United States, residing at Homestead, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Gage-Line Holders; and I do hereby 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 object of this invention is to provide an improved means by the use of which brick walls may be "lined" without defacement thereof, and much truer and in shorter time than is possible with the means at present employed to guide the bricklayer in laying bricks in true alignment with each other.

To this end the invention consists in certain peculiarities in the construction, arrangement and combination of the several parts entering into the construction of my improved device, substantially as hereinafter described and particularly pointed out in the subjoined claims.

In the accompanying drawings illustrating the invention Figure 1 is a plan view of part of a brick wall with my improved device in position thereon. Fig. 2 is a perspective view of one of the end plates and Fig. 3 is a perspective view of the other end plate, and the means supported thereby for adjusting the tension of the line.

The same letters of reference are used to designate the same parts in the several views.

My improved device consists essentially of two end plates A and B, each of which is so constructed that it will span a corner of a wall, and, except at each of its ends, to be out of contact with the wall, so as to provide a space between its main portion and the wall to accommodate the guide line, and a means upon one of said plates for securing one end of the line, and a means upon the other of said plates for securing the other end of said line and for tightening the same and holding it taut. The construction now to be described is preferred to all others with which I have experimented, but I do not wish to be understood as limiting myself to its precise construction, as the details may be varied without departing from the spirit of the invention.

The plate A is of rectangular form and has at one end a curved flange *a*, designed to engage a wall on one side of the corner thereof, and at or near its opposite end is formed or provided with an inwardly extending lug or projection *a'* designed to engage the wall on the opposite side of said corner. Said plate is also formed or provided at a suitable point with an outwardly extending post *a''*, to which one end of the guide line C is secured, and said flange *a* is formed with a slot *a'''*, through which and an opening in the lug *a'* said line extends in its passage to the plate B.

The plate B is provided with a flange *b* and lug *b'*, similar in form and function with the flange *a* and lug *a'*, respectively, above described. It is further provided at its end adjacent to the flange *b* with inclined arms *b''*, within which is journaled the ends of the shaft of a drum D. E designates a ratchet wheel which is mounted beside said drum, and F a spring pawl, one end of which is suitably secured to said plate B and the opposite end of which is suitably formed to engage the teeth of said ratchet wheel.

The drum D is rotated by a crank G suitably secured to the end of its shaft.

The guide line C is suitably secured at one end to the post *a''*, passes thence rearward to and through the opening *a'''*, thence forward through the openings in lugs *a'* and *b'* and flange *b* to and around the drum.

In operation the plates A and B are engaged with the wall at the opposite ends or sides thereof in the manner shown in Fig. 1, and the line is drawn taut by rotating the drum, and is held taut by the engagement of pawl F with ratchet wheel E. It will be observed that the line does not turn the corners or angles of the wall or come into contact with such corners or angles. This is an important advantage because it prevents injury to the mortar joint; and, furthermore, because the line is not so quickly rotted by the action of the lime in the mortar when it is not in contact with said mortar, whereby its length of usefulness is increased and, consequently, the necessity of an entire cessation of work every few hours until a new line is adjusted, is obviated.

Ordinarily there is no necessity for the use of nails or other similar means for fastening the plates to the wall, as said plates will be

held in proper position by the tension to which the line is subjected by the drum, which is of very great importance as it permits the device to be much more quickly placed in position and adjusted from one course to another than is possible with the means at present employed, but when it is desired to plumb the wall, which is usually done only in the header courses, it is advisable to secure the plates to the wall by brads or nails, as the line must be loosened to permit the plummet to be inserted, and to this end I have formed the plates with perforations a^2 and b^2 , through which the brads or nails are passed.

Another advantage possessed by my improved device over the constructions in which the line is drawn taut by hand is that the line can be drawn perfectly tight over any length of wall, so that there will be no sagging at the middle thereof, thereby making the device more reliable as a guiding means, and permitting the building by its use of an absolutely straight wall without the necessity of twigging the line at its center. Thus it will be seen that the use of my device will result in economy of time in the building of brick walls, and that it will more perfectly serve as a guide to the building of the walls absolutely straight and level, and will not injure or deface the mortar joint.

In practice I prefer to make the line of wire because such material possesses the double advantage of being not injuriously affected by the mortar and of withstanding any amount of strain to which it may be subjected. I also prefer to removably secure the crank to the drum shaft so that it may be changed from one end of the shaft to the other when the device is changed from one side or end of the wall to the other, and thereby always be in the most convenient and accessible position, but if desired the drum shaft may be provided with two cranks, one upon each end.

The inclination of the arms b'' and the diameter of the drum D are relatively such that the periphery of said drum will be so located with respect to the opening through the flange b that the line will not be bent or twisted between said drum and flange.

Having now described my invention, what I believe to be new, and desire to secure by Letters Patent, is—

1. In a gage line holder, the combination of two plates, each constructed to span a corner of a wall and except at each of its ends to be out of contact therewith, a means upon one of said plates to which an end of the guide line is fastened, and a winding means upon the other of said plates for drawing said line taut.

2. In a gage line holder, the combination of two plates, each having a flange at one end and a lug at its opposite end which engage the sides of a wall at an angle to each other and hold the intermediate part of the plate away from said wall, said lugs being constructed to permit the passage therethrough of the guide line, means upon one of said plates for tightening the line, and a means on said intermediate portion of the other plate to which an end of the line is secured, substantially as described, whereby the guide line will be held out of contact with the mortar joint of the wall.

3. The combination with the plate A having the flange a , lug a' , and post a'' , with the plate B also having a lug and a flange, the guide line secured at one end to said post, and extending through openings in said flanges and lugs, and a tightening means for said guide line mounted upon said plate B, substantially as shown and described.

4. The combination with the plate B, having flange b , lug b' , and arms b'' , with the drum journaled in said arms, a ratchet beside said drum, a pawl engaging said ratchet, the guide line engaging said drum, and extending through openings in said flange and lug, and means to which the other end of said guide line is secured.

5. The combination with the plate A, having the flange a , lug a' , and post a'' , with the plate B, having a flange b , lug b' , and arms b'' , a drum journaled in said arms, a ratchet mounted beside said drum, a pawl engaging said ratchet, the guide line engaging said drum at one end, and extending through openings in said flanges and lugs to said post, and means for rotating said drum.

In testimony whereof I affix my signature in presence of two witnesses.

ANDREW S. SNYDER.

Witnesses:

THOS. J. JAMISON,
JOHN B. FAWCETT.