

(No Model.)

H. STEWART.
ABACUS ATTACHMENT FOR SLATES.

No. 501,379.

Patented July 11, 1893.

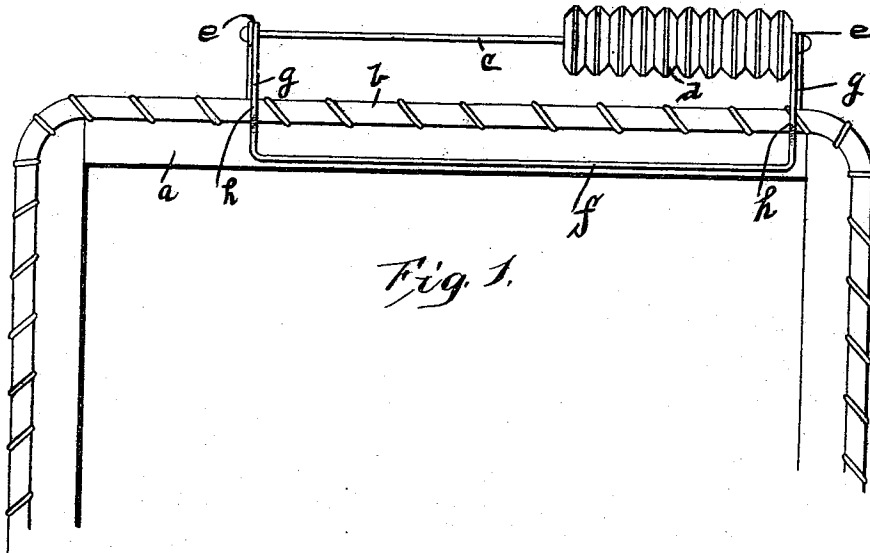


Fig. 1.

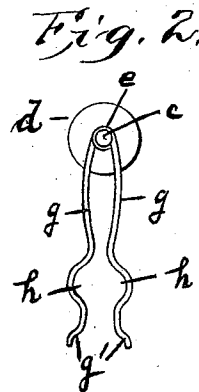


Fig. 2.

WITNESSES:

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ABACUS ATTACHMENT FOR SLATES.

SPECIFICATION forming part of Letters Patent No. 501,379, dated July 11, 1893.

Application filed December 3, 1892. Serial No. 453,960. (No model.)

To all whom it may concern:

Be it known that I, HENRY STEWART, of Canandaigua, in the county of Ontario and State of New York, have invented certain new and useful Improvements in Abacus Attachments for Slates; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to an improved abacus attachment for slates.

The object of the invention is to provide an abacus attachment very simple, cheap and durable in construction and which can be easily and quickly applied to or removed from slates or the like.

The invention consists in certain novel features of construction and in combinations of parts more fully described hereinafter and particularly pointed out in the claims.

Referring to the accompanying drawings:— Figure 1 is a view showing part of a slate with the present invention applied thereto. Fig. 2 is an end elevation of the attachment removed.

In the drawings the reference letter *a*, indicates a slate frame provided with the usual binding *b*.

The abacus attachment comprises a rod *c*, having headed ends. The counting buttons, blocks or disks *d*, slide on this rod and are confined thereon in any suitable manner. Suitable clamps are provided to removably secure this rod to the frame of the slate. These clamps are preferably formed of spring wire coiled at *e*, around the ends of the rod at the inner sides of the heads. The two ends of the wire extend outwardly as shown to form a pair of jaws at each end of the rod, the jaws of each pair constantly tending to spring together. Corresponding jaws at opposite ends of the rods are secured together by the

bars *f* as shown. As ordinarily constructed each pair of jaws is formed of a single piece of spring wire bent at right angles from the ends of the jaws to form the bars *f*. The ends of the wires from the opposite pairs of jaws are secured together. However I do not limit myself to this particular construction of the jaws. The ends of the jaws are preferably bent out as shown at *g'*, to facilitate slipping the jaws onto the slate frame, and the jaws between their ends are provided with the recesses or lateral bends *h* to receive the slate binding or wrapping *b*.

This device is very simple and inexpensive in construction and simple in operation and yet furnishes a complete abacus for attachment to slates or other articles. The device if desired can be made entirely from wire.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As a new article of manufacture an abacus provided with spring jaws attached to the ends thereof and arranged to clamp the abacus to a slate frame, substantially as described.

2. An abacus provided with spring jaws formed of wire coiled around the ends of the abacus and extended laterally therefrom to grasp a slate frame, and having recesses to receive the binding of the frame, substantially as described.

3. An abacus having a rod and counters thereon, and the wire coiled around the rod and extended outwardly, U shaped, to form two parallel jaws, the outer portion of the jaws parallel with the rod, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

HENRY STEWART.

Witnesses:

B. E. DAVIS,
J. S. COE.