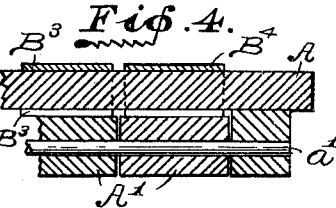
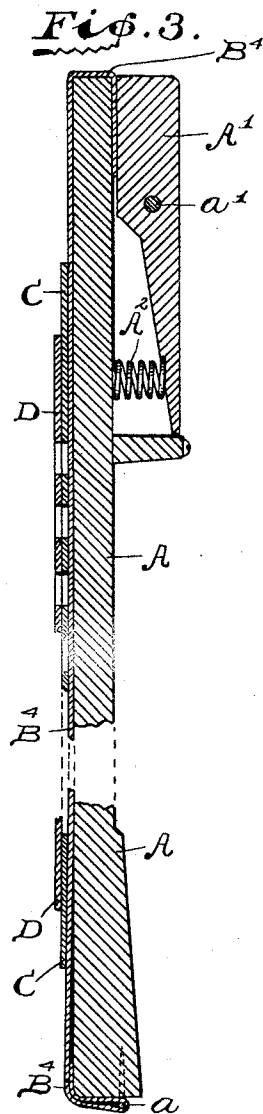


J. S. DURET.
CALCULATING DEVICE.

Patented Sept. 12, 1893.



INVENTOR

James S. Duret,
PER *Chester Bradford,*
ATTORNEY.

UNITED STATES PATENT OFFICE.

JAMES S. DURET, OF NOBLESVILLE, INDIANA.

CALCULATING DEVICE.

SPECIFICATION forming part of Letters Patent No. 504,776, dated September 12, 1893.

Application filed February 2, 1893. Serial No. 460,638. (No model.)

To all whom it may concern:

Be it known that I, JAMES S. DURET, a citizen of the United States, residing at Noblesville, in the county of Hamilton and State of Indiana, have invented certain new and useful Improvements in Calculating Devices, of which the following is a specification.

My present invention consists in certain improvements upon those for which Letters Patent of the United States No. 233,840, dated November 2, 1880, and No. 283,331, dated August 14, 1883, have heretofore been granted to me.

Said invention will be first fully described and then pointed out in the claims.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a face or plan view of an apparatus embodying my said invention; Fig. 2 a transverse sectional view on the dotted line 2—2 in Fig. 1; Fig. 3 a longitudinal sectional view, on an enlarged scale, on the dotted line 3—3 in Fig. 1, the central portion being broken away, and Fig. 4 a transverse sectional view, also on an enlarged scale, on the dotted line 4—4 in Fig. 1.

In said drawings the portions marked A represent the main board or base of the calculator; B', B², B³, B⁴ represent strips of paper bearing thereon (in cases when the calculator is used for the assessment of taxes, to which it is peculiarly adapted), figures indicating valuations in even hundreds of dollars, and the first and second installment, and total of the taxes, at the desired rate, this requiring, as will be observed, four different strips, the first bearing the valuation, the second the first installment, the third the second installment, and the fourth the total of the taxes upon said valuation.

C is a sliding frame; and D a swinging frame, which I use in much the same manner as in my aforementioned Letters Patent. Said sliding frame, however, is attached to the base in a somewhat different manner, as will be presently described.

The base A supports the strips and sliding frames, and is provided with a longitudinal dove-tailed groove extending through the center, in which a corresponding dove-tailed rib

on the sliding frame C is adapted to be placed and moved, and at one end is provided with wire or similar loops *a* to which one end of the strips is secured, and at the other end is provided with spring clamps A', whereby the other ends of said strips are secured. Said spring clamps A' are mounted on pivots or a pivot rod *a'*, and are operated by springs A², and their outer ends are adapted to bear forcibly against and hold the strips firmly onto the base A.

The various strips B', B², B³, B⁴ are each first doubled around one of the loops *a*, and then carried up over the face of the base A and bent down under one of the clamps A', where it is secured, as has just been described. It will be observed, by the use of these separate strips, which are thus easily removable, and which can be provided in large variety, that, as the necessities of computation vary, one or more of the strips may be removed and another put in its place, and thus an almost infinite variety or number of computations can be provided for without printing any complete sheets, as is necessary with my former inventions. The number of strips can be varied, to accommodate varying sizes, as will be readily understood.

The sliding frame C has a dove-tailed rib C' which enters a dove-tailed way in the base A, as shown most plainly in Figs. 1 and 2, and said frame is enabled to be moved over the base by sliding it up and down, it being held securely by said dove-tailed way and rib. It is provided with a handle-piece *c*, as shown, for convenience. The swinging frame D is hinged upon said frame C, as in my former inventions.

The superiority of my present invention over my former ones mainly lies in the ease with which it is manipulated, and the convenient and economical method of substituting portions of the tables without disturbing the whole of them. It may be used for computing wages and other matters as well as taxes.

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

1. The combination, in a calculator, of the base, several detachable strips thereon, spring clamps for holding said strips, a sliding frame

mounted upon and adapted to slide over said
base and strips and provided with perfora-
tions through which the figures on said strips
may be seen, and a swinging frame hinged to
5 said sliding frame, the whole being arranged
and operating substantially as shown and de-
scribed.

2. The combination, in a calculator, of the
base A having loops *a*, the detachable strips
10 inserted in said loops at one end and passing
lengthwise over said base, and spring clamps

A' at the other end whereby said strips are
held at that point, substantially as shown and
described.

In witness whereof I have hereunto set my
hand and seal, at Indianapolis, Indiana, this
28th day of January, A. D. 1893.

JAMES S. DURET. [L. s.]

Witnesses:

CHESTER BRADFORD,
JAMES A. WALSH.