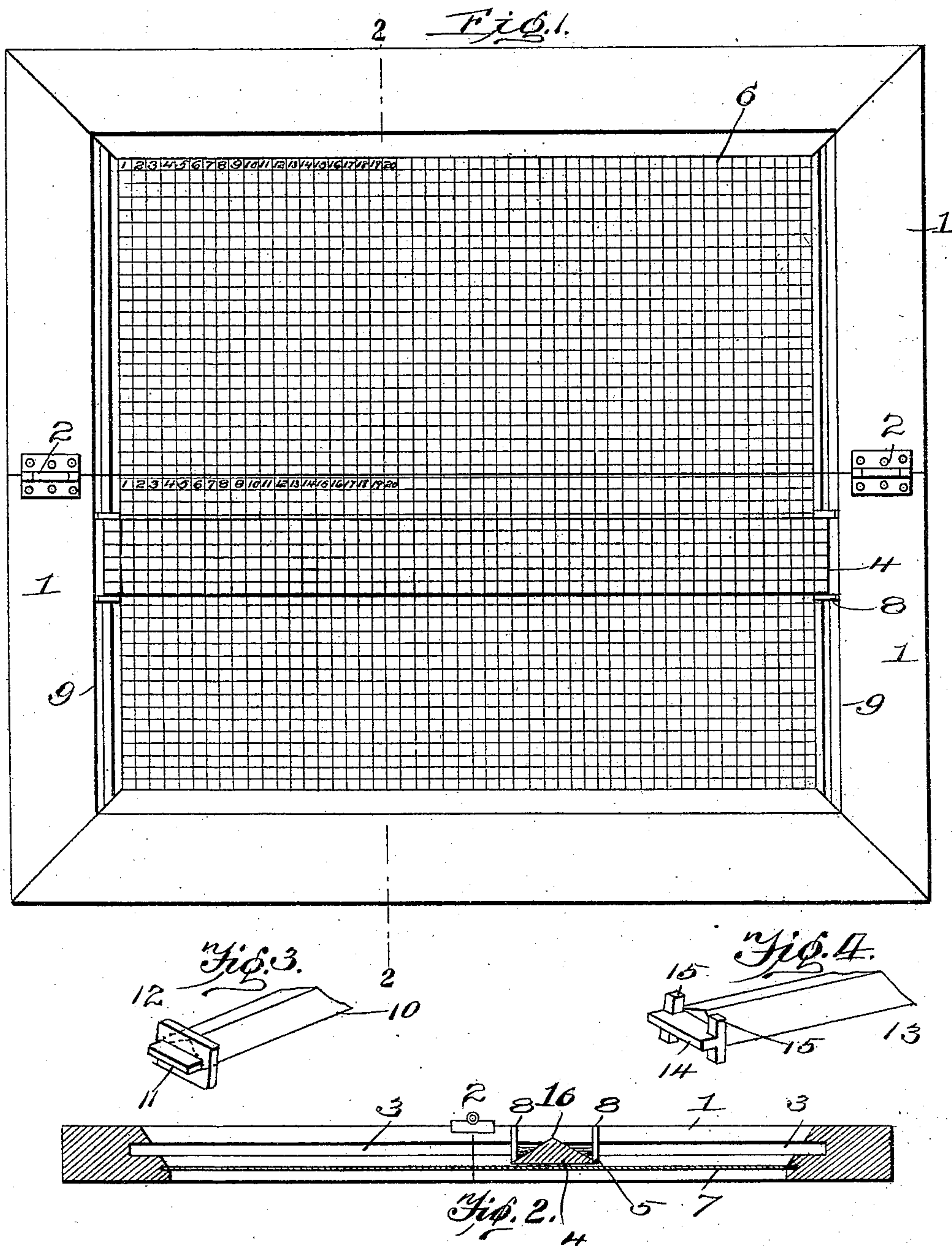


No. 855,217.

PATENTED MAY 28, 1907.

J. A. ANSELL.
CHART FRAME WITH ADJUSTABLE SLIDE.
APPLICATION FILED OCT. 9, 1905.



Inventor

Witnesses

J. M. Fowler Jr.
E. E. Vrooman.

John A. Ansell,
Mason, Fenwick & Lawrence.
Attorneys

UNITED STATES PATENT OFFICE.

JOHN A. ANSELL, OF SEATTLE, WASHINGTON.

CHART-FRAME WITH ADJUSTABLE SLIDE.

No. 855,217.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed October 9, 1905. Serial No. 282,030.

To all whom it may concern:

Be it known that I, JOHN A. ANSELL, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Chart-Frames with Adjustable Slide; 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.

This invention relates to improvements in chart frames, and particularly to a chart frame or support and an adjustable slide therefor.

The object of the invention is the provision of means for facilitating the computing of the value of an article.

With this and other objects in view, the invention consists of certain other novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the claims hereto appended.

In the drawings: Figure 1 is a top plan view of a device constructed in accordance with the present invention. Fig. 2 is a sectional view taken on line 2, 2, Fig. 1. Figs. 3 and 4 are fragmentary, perspective views of different embodiments of the slide.

Referring to the drawings, 1, 1 designate the sections of a chart frame. The sections 1 are hinged together, as at 2, by any suitable means, as for instance, ordinary hinges. These hinges are preferably countersunk, so that when the sections are folded in parallel position, they will be in engagement. Formed upon the inner surface of the sections are grooves 3. These grooves are preferably formed upon the ends of the sections. The folding of the sections throws open the grooves or gutters 3, and thus, permits the slide or bar 4 to be inserted or removed. It is to be noted that these grooves or gutters 3 are formed in the central portion of the body of the frame. The slide or adjustable member 4 is beveled for producing two inclined surfaces, which extend from the lower edge, as at 5, to the highest portion 16 of said slide. The base of the slide is positioned near the top surface of the chart 6. The chart 6 is supported upon the bottom or floor 7 of the frame, said floor necessarily being formed in sections, each section being carried by one of

the sections of the frame. To prevent the adjustable slide from binding in the grooves of the frame, and facilitate the adjustment of the same over the surface of the chart, I provide guiding means upon said slide near each end thereof. This guiding means comprises a pair of integral, vertical extensions 8, 8 formed upon each end of said slide 4. The guide extensions 8 engage the inner surfaces 9 of the chart frames. By forming two guides or guards upon each of the ends of the slide, an uneven or "wabbling" movement of said slide is prevented during the adjustment of the same upon the frame. The tenons or tongues of the slide 4 extend into and are of the same length as the depth of said grooves or gutters 3.

The slide 10 depicted in Fig. 3 is provided with the upper, beveled surfaces and with tenons 11 formed upon the ends thereof. A vertical guide or guard member 12 is formed upon each end of the slide and is for the same purpose as the parallel, vertical guide or guard members 8, 8. This guide member 12 is substantially flat, and its length is substantially the same as the width of the slide 10.

The slide 13 is provided at each end with a tenon or tongue 14 and also with parallel, integral, vertical extensions 15, 15. These extensions project a short distance below and above the tenon or tongue 14. The extensions 15 are similar in structure to the extensions 8. The extensions 8 and 15 or the guard member 12, perform the same function of preventing any tendency of the slide to oscillate during the adjustment of the same within the frame.

The primary chart 6 is the same size as the floor 7 of the chart frame, or, if it is desirable, the same can be larger, to permit its four edges to be pasted or otherwise secured to the floor or back 7 of said frame. The chart 6 is necessarily made in two sections, to permit the folding of the sections of the frame together. The entire face of the primary chart is covered with small squares, numbering each way, preferably from 1 to if desired 100, or it may be larger. Over the entire surface of the slide is pasted, or otherwise suitably attached, squares, each containing figures, and so arranged that the squares on the main or primary chart and on the face of the slide, carrying the auxiliary chart, will conform, and the figures therein

having been predetermined as to result, will when together at any point, produce a fore-known result. When the chart is provided with squares, and figures are positioned in
5 said squares from 1 to 100, any result can be secured which is included between $\frac{1}{4}$ and 100, either in cents or weights, etc.

It will be obvious that I have produced a device, which involves a stationary or pri-
10 mary and an adjustable, auxiliary chart, in obtaining the result of calculation.

What I claim is:

1. In a device of the class described, a hinged frame having grooves formed in its
15 longitudinal inner edges, and a slide having tenons formed upon its opposite ends and

slidably mounted in the grooves, and removable therefrom when the frame is folded.

2. In a device of the class described, a hinged frame having grooves formed in its
20 longitudinal inner edges, a slide having tenons formed upon its opposite ends and slidably mounted within the groove, and with reversely inclined sides forming beveled opposite edges, and removable therefrom when
25 the frame is folded.

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

JOHN A. ANSELL.

Witnesses:

G. WARD KEMP,
A. J. ALLISON.