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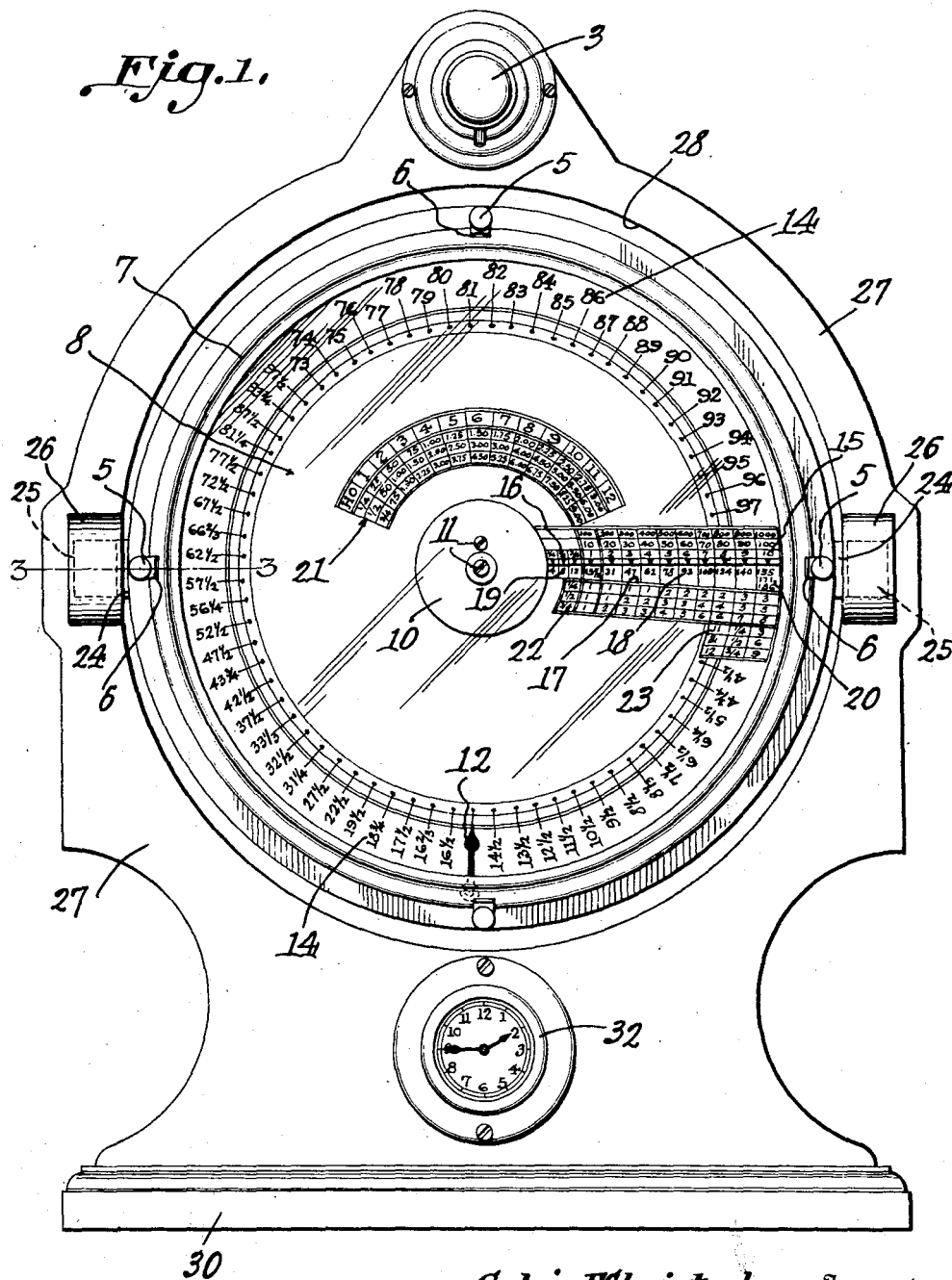
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CALCULATING DEVICE

Filed March 26, 1923

2 Sheets-Sheet 1



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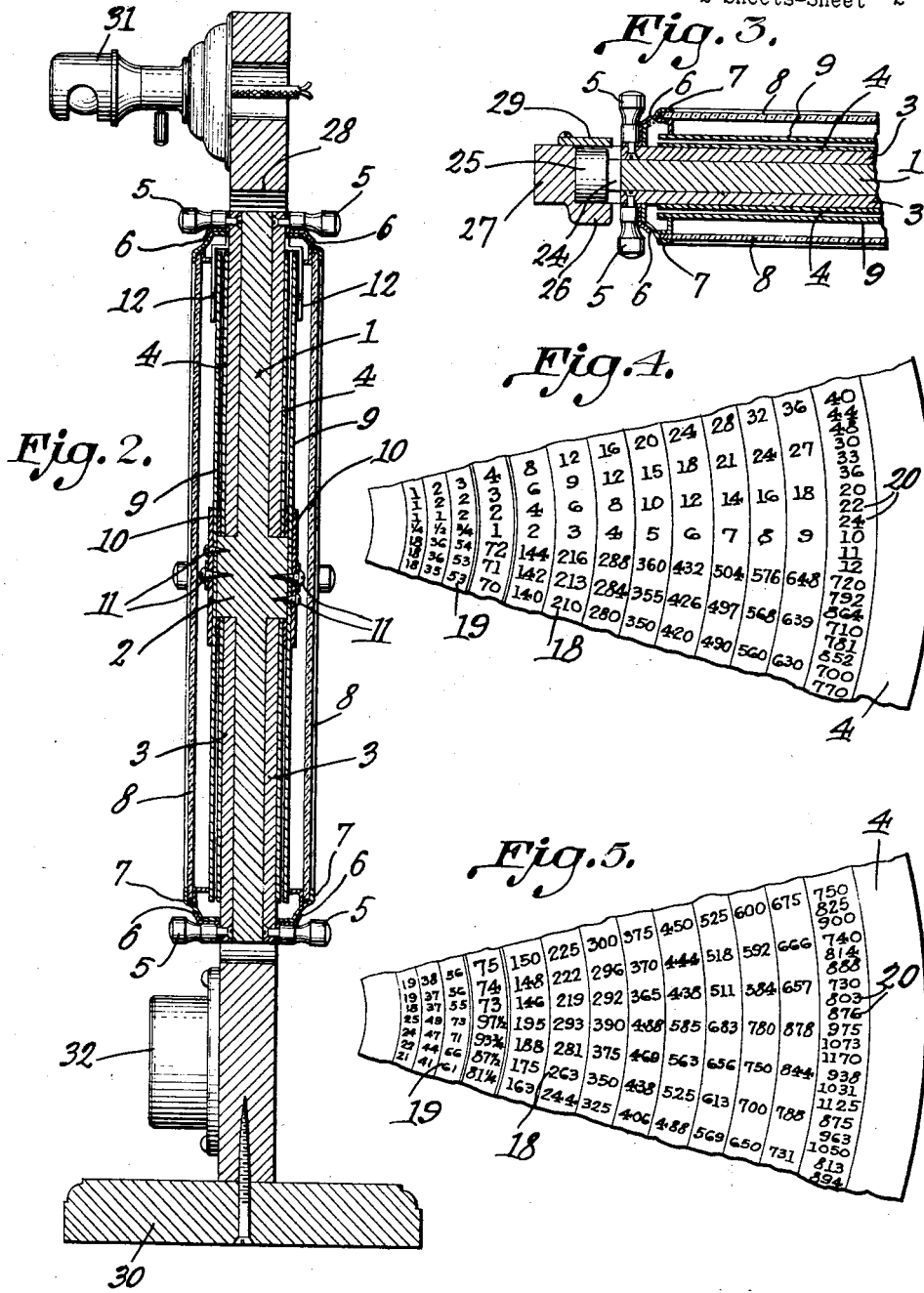
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE.

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CALCULATING DEVICE.

Application filed March 26, 1926. Serial No. 97,617.

This invention aims to provide a novel and simple device for carrying on calculations readily, and to provide novel means for mounting the calculating mechanism so that it can be noted and operated readily.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the invention appertains.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the drawings:—

Figure 1 shows in elevation, a device constructed in accordance with the invention;

Figure 2 is a vertical section;

Figure 3 is a section on the line 3—3 of Figure 1; and

Figures 4 and 5 are fragmental elevations showing certain of the graduations.

The device forming the subject matter of this application comprises a support 1 in the form of a plate, having a central hub 2. Carriers 3, likewise in the form of plates, are journaled on the hub 2 and are located on opposite sides of the support 1, in contact therewith. Disks 4 are secured to the outer surfaces of the carriers 3. Securing devices 5, provided with knobs, are mounted on the carriers 3, near to the periphery thereof. The securing devices 5 carry clips 6. The clips 6 hold bezels 7 on the carriers 3. The bezels 7 retain crystals 8. Face plates 9 are located between the disks 4 and the crystals 8. The face plates 9 are held by caps 10 and securing elements 11 on the ends of the hubs 2. The face plates 9, therefore, are fixed, whereas the carriers 3, the disks 4 and the crystals 8 are rotatable, the knobs 5 constituting means whereby the parts specified may be rotated. Indicators 12 are attached to the bezels 7 and overhang the fixed face plates 9. Each of the fixed face plates 9 has a ring of numerals 14. Each face plate 9 has a radial line of numerals 15, indicating whole numbers, and a radial line of fractional markings 16. Radially elongated openings 17 are fashioned in the face

plates 9 below the numerals shown at 15. The rotatable disks 4 have radial lines of numerals 18. These numerals 18 indicate the price of merchandise in quantities represented by the numbers at 15 on the fixed face plates 9. The rotatable disks 4 have radial lines of numerals 19. The numerals at 19 indicate the price of merchandise in fractional quantities designated by the numerals 16 on the fixed face plates 9.

Referring to Figure 1, for example, suppose that the operator is dealing in cloth at $15\frac{1}{2}\text{¢}$ per yard. Then he turns the carriers 3 and the disks 4 until the indicator 12 is on the numeral $15\frac{1}{2}$ in the ring 14, as shown in Figure 1. This causes the numeral $15\frac{1}{2}$ in one of the radial lines 18 on the disk 4 to appear through the opening 17 in the fixed face plate 9. The operator can now ascertain at a glance, for instance, that nine yards of material at $15\frac{1}{2}\text{¢}$ per yard will cost \$1.40, and if he is dealing in fractional quantities, he can, by referring to the numerals shown at 16 and 19, ascertain that three-quarters of a yard of material at $15\frac{1}{2}\text{¢}$ per yard will cost 12¢. Between the outermost numerals in the lines 18 (Figure 4) on each disk 4, there are supplemental numerals shown at 20. The numerals indicated at 15 on the face plate 9 run to 10 only but, although the said numerals run to 10, only, the operator can make computations for 11 yards of cloth, or 12 yards of cloth, for instance, the numerals shown at 20 (Figure 1) indicating, respectively, that 11 yards of merchandise at $15\frac{1}{2}\text{¢}$ will cost \$1.71, and that 12 yards at $15\frac{1}{2}\text{¢}$ will cost \$1.86.

On each of the face plates 9 there is a table shown at 21. This table need not be described in detail, owing to its simplicity. It can be seen, however, for instance, that if a person works four hours at 25¢, or a quarter of a dollar per hour, the sum of \$1.00 will be due him: or that if he works three-quarters of a day at \$3.00 per day, the sum of \$2.25 will be coming to him.

On each face plate 9 there is inscribed a table shown at 22 and useful in computations of various kinds, especially in connection with the numerals shown at 15. Thus, by the use of the table shown at 22, in conjunction with the numerals shown at 15, the operator may find out at a glance that three-quarters of an article which costs 9¢, will

call for a payment of 7¢, or that five articles, at a half a cent apiece, will cost three cents. The table 22 has an extension 23 which gives fractional values of 11 and 12.

5 The field of use for the machine as shown can be extended if the support 1 and parts carried thereby is reversed and in order to provide for the aforesaid reversal, the support or plate 1 is supplied at its sides with trunnions 24, terminating in enlarged heads 10 25 (Figure 3), that are journaled in outstanding bearings 26 on a frame 27 having an opening 28 for the reception of a plate 1 and attendant parts, the heads 25 being held 15 in the bearings 26 by means of detachable retainers or plates 29, mounted on the frame 27 and closing one side of the bearings 26, as shown in Figure 3. The construction, obviously, is such that the support 1 may be 20 reversed upon a horizontal axis to present either working side of the machine to an observer. The frame 27 is secured to a broadened foot 30 so that it can be stood up anywhere. An electric lamp 31 mounted on the 25 upper end of the frame 27, illuminates those

portions of the device by which computations are made.

For the convenience of an operator, a time piece 32 is mounted in the lower portion of the frame 27. 30

What is claimed is:—

1. In a device of the class described, a carrier, a bezel on the carrier, mechanism for mounting the carrier for rotation; and means for rotating the carrier, said means 35 engaging the bezel to hold it on the carrier.

2. In a device of the class described, a carrier, a bezel on the carrier, mechanism for mounting the carrier for rotation, a securing 40 device on the carrier, a clip on the securing device and engaging the bezel to hold it on the carrier, and a knob on the securing device and retaining the clip, the knob constituting means whereby the carrier may be 45 rotated.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

CALVIN F. CHRISTOPHER.