

No. 861,952.

PATENTED JULY 30, 1907.

G. F. CLARK.
MEASURING DEVICE.

APPLICATION FILED JUNE 20, 1905. RENEWED DEC. 27, 1906.

Fig 1

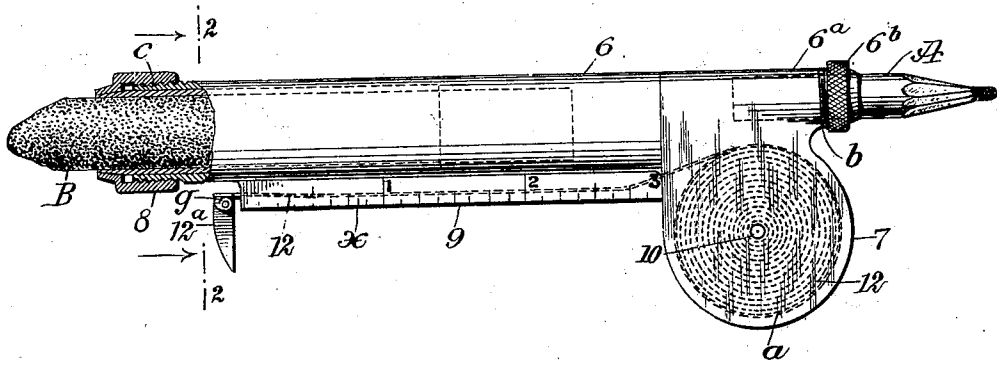


Fig 4

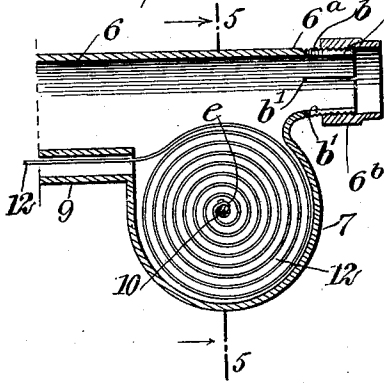


Fig 2

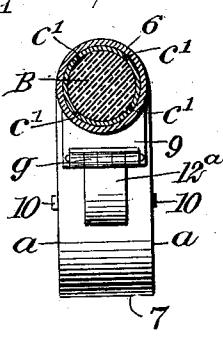


Fig 5

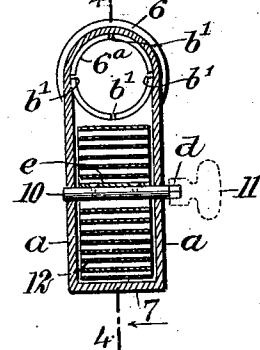
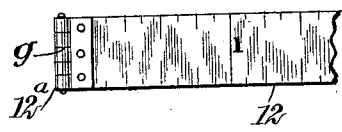


Fig 3



WITNESSES:
H. Walker
J. L. Patton

INVENTOR
George F. Clark
BY *[Signature]*
ATTORNEYS

UNITED STATES PATENT OFFICE.

GEORGE FREDRIC CLARK, OF TOWER, MINNESOTA.

MEASURING DEVICE.

No. 861,952.

Specification of Letters Patent.

Patented July 30, 1907.

Application filed June 20, 1905, Serial No. 266,098. Renewed December 27, 1906. Serial No. 349,678.

To all whom it may concern:

Be it known that I, GEORGE FREDRIC CLARK, a citizen of the United States, and a resident of Tower, in the county of St. Louis and State of Minnesota, have invented a new and Improved Measuring Device, of which the following is a full, clear, and exact description.

In the measuring of timber and lumber, technically known as grading and scaling the logs or boards, it is necessary for the operation that the operator carry with him for use, a rule, lead pencil, board rule and chalk, and if either article is lost the work is seriously impeded.

The object of this invention is to provide in one compact implement, convenient for use as may be required, a board or log rule of suitable length, a short scale to take the thickness of plank or boards, and a pencil holder and a chalk holder for respectively tallying the material as measured, and for marking the area or cubical contents of boards or logs, respectively, as they are measured.

The invention consists in the novel construction and combination of parts, as is hereinafter described and indicated in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a partly sectional side view of the improved combination implement; Fig. 2 is a transverse sectional view substantially on the line 2—2 in Fig. 1; Fig. 3 is a plan view of an end portion of a steel tape and a foot member hinged on one end thereof, that are details of the invention; Fig. 4 is a longitudinal sectional view of details substantially on the line 4—4 in Fig. 5; and Fig. 5 is a transverse sectional view of the same parts, substantially on the line 5—5 in Fig. 4.

A preferably tubular casing 6 forms the stock of the implement, said casing having a suitable length and thickness for the proper support of other parts and to enable the convenient manipulation of the device as an entirety. At one end of the stock 6 a tape holder box 7 is formed or secured thereon, it having parallel spaced side walls *a, a*, and a mainly circular periphery, the box extending laterally from the stock as is clearly shown in Figs. 1 and 4 of the drawings. Above the box 7, the end portion of the stock 6 is furnished with a hollow nipple 6^a that is exteriorly threaded as indicated at *b* in Figs. 1 and 4, the wall of the nipple also having longitudinal slots *b'* therein to render the same compressible. Upon the nipple 6^a a constricting nut 6^b is mounted, which by screwed adjustment is adapted to compress the slotted wall of the same and reduce the diameter of the bore, so as to hold firmly in the nipple a lead pencil A which may extend a desired length from the stock 6 and be adjusted as to such projection in an obvious manner. At the opposite end of the

stock 6 an external thread *c* is formed thereon, and a plurality of spaced slits *c'* are formed longitudinally in this threaded end, whereon a cap-nut 8 is screwed, that is slightly coniform at the capped end and thus adapted for compressing the slotted end of the stock and cramping it upon a chalk crayon or other cylindrical piece of material B, generally used in the marking of timber and boards as they are scaled.

A rectangular guide box 9 is formed or secured on the stock 6, extending from the tape holder box 7 to a point near the nut 8. Upon the exterior side surface of the guide box 9 a scale *x* is formed that indicates inches and fractions thereof, this scale being useful to ascertain the thickness of plank or boards. A shaft 10 is pivoted at or near its ends in the box 7, engaging central perforations of the side walls *a*, and said shaft may have a short angular projection *d* for reception of a winding key 11 shown by dotted lines in Fig. 5. Upon the shaft 10 within the tape holding box 7, a preferably resilient tapeline 12 formed of thin steel plate material is secured by one end *e*, the tape inherently coiling upon the shaft so as to be normally contained in the box 7, and adapted to return thereto if drawn outward at its opposite end and then released. The tape line 12 is graduated in feet, inches and fractions of an inch, and of a suitable length for effective service in the measurement of logs or boards. At the opposite end, the tape line is passed outward through the open ends of the guide box 9, as indicated in Figs. 1 and 4, and at the extremity which extends out of the guide box a gage finger 12^a is hinged by a rule joint *g* which permits the finger to fold toward the tape line, but it prevents from extending outward beyond a right angle, this normal position of the gage finger being shown in Fig. 1.

It will be seen from the illustration of the improvement and the foregoing description, that there is combined in compact, convenient form, a pencil and crayon holder which permits the adjustment of either for projection from opposite ends of the stock or holder to compensate for wear of said marking means, and also permits the substitution of a new pencil or crayon or both, as occasion may require. The graduations on the guide box enable the instantaneous measurement for thickness of plank or boards and also of studding or other timber, within the capacity of the rule.

In use, the pencil A enables the scaler to instantly note the thickness of material on a tally sheet, or in a memorandum book as may be desired, and by reversing the ends of the stock the scaled material may be checked marked with the crayon B.

In using the tape line, the gage finger 12^a is hooked upon the end of a piece of timber, a log, plank or board, and then the line is drawn out along the material for its lineal measurement, after which the same operation may be conducted for effecting the measurement of the width of the material, the measure being subsequently

noted in the manner already described as to the thickness of the same.

To expedite the work of measuring the material, the graduations on the rule and on the tape line may be
5 such as are employed for the measurement of boards, and as this is a detail in common use it does not require special illustration.

While it is preferred to employ a tape line formed of a self-coiling steel band or strip, as hereinbefore described, it is obvious that a tape line of linen or other
10 non-resilient material may be used, and in this case the shaft 10 may be rotated manually for wrapping the tape line thereon, by application of a key 11 or the like upon a short angular extension of one end of said shaft, as is
15 indicated by dotted lines in Fig. 5, and hereinbefore mentioned.

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

A measuring device embodying a tubular stock, a line-
20 holding box extending laterally from the stock, a shaft journaled transversely in the line-holding box, a tape line secured by one end to the shaft and normally wrapped thereon, a guide box leading from the line holding box and having rule graduations on one side, one end of the tape
25 line extending through the said guide box, a gage finger hinged to the extended end of the line, and means for preventing the outward movement of the gage finger with respect to the line beyond a right angle.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 30

GEORGE FREDRIC CLARK.

Witnesses:

JAS. HEATTIE,
JAKE QUIGLEY.