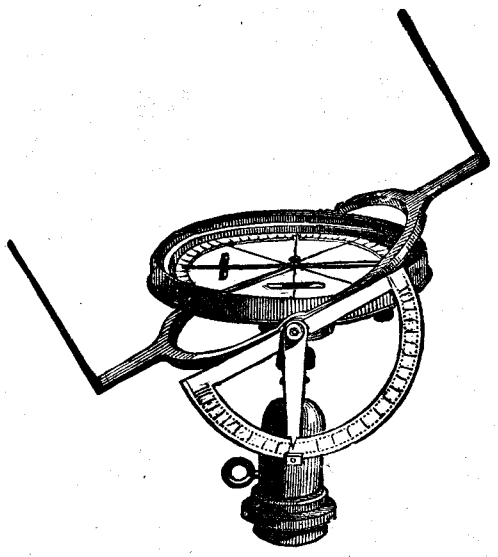
JOHN DAVIS & SON,

MANUFACTURERS,



ALL SAINTS WORKS,

DERBY,

ENGLAND.

LONDON:
PRINTED BY WATERLOW & SONS LIMITED, LONDON WALL.

1877.

THEODOLITES.

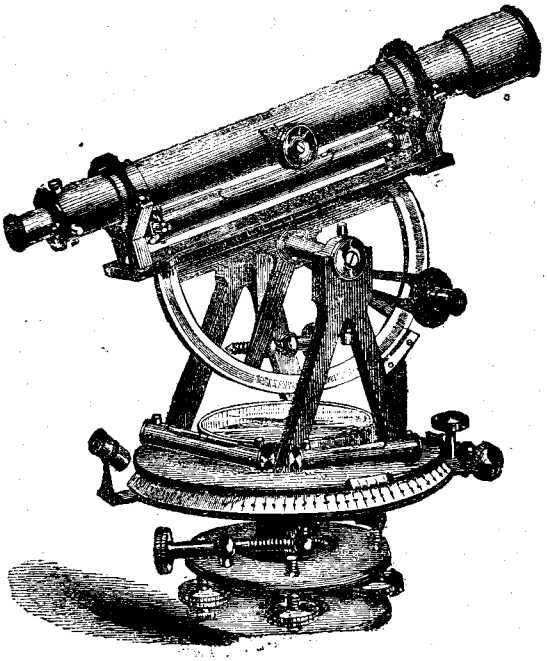


Fig. 3.

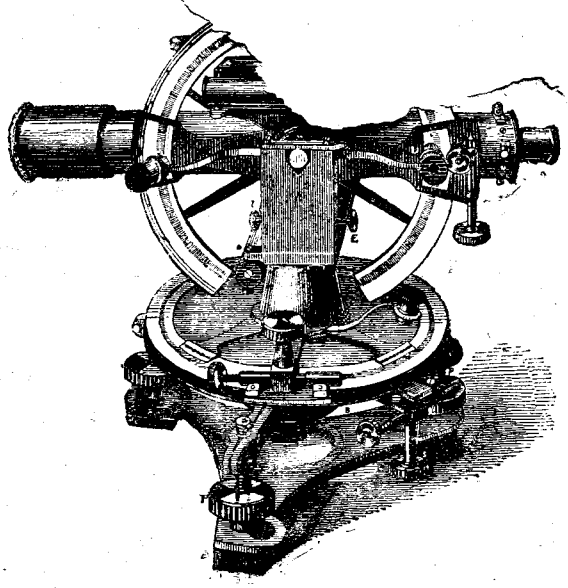


Fig. 5.

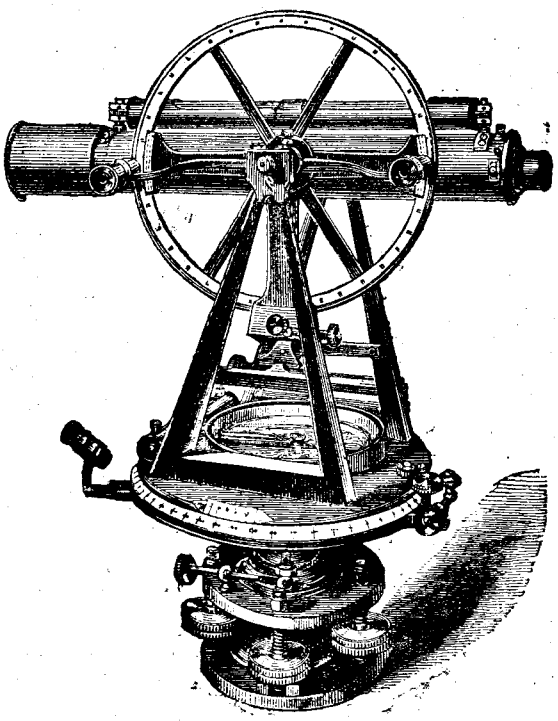


Fig. 4.

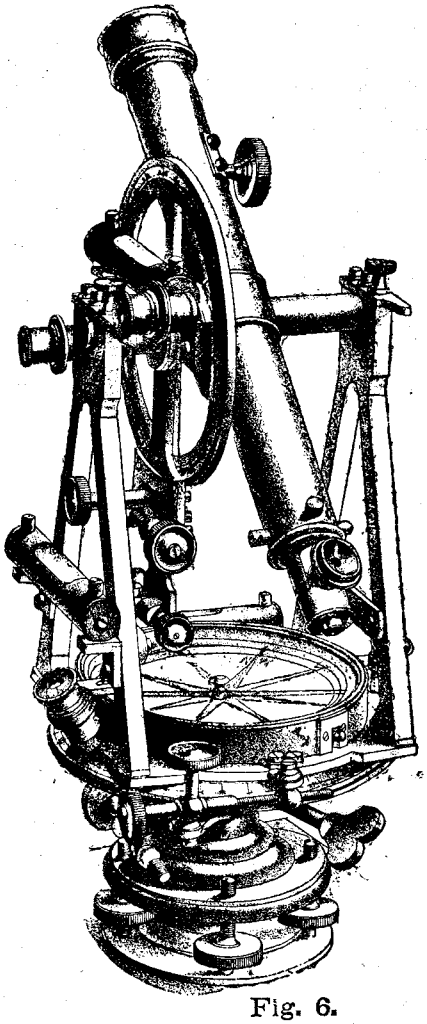


Fig. 6.

DAVIS'S IMPRO[illegible]

THEODOLITES—continued.

Fig. 3	1.—4 in. best plain Theodolite, reading to 1 ft.	... ...	£21 0 0
	2.—5 in. ditto ditto		24 5 0
	3.—6 in. ditto ditto, reading to 20 in.	... ...	27 7 0

Fig. 4	4.—4 in. Transit Theodolite, reading to 1 ft.	... ...	£23 10 0
	5.—5 in. ditto ditto	... ...	25 0 0
	6.—6 in. ditto ditto, with axis level, etc., reading to 30 in.	... ...	30 5 0
	7.—6 in. ditto ditto ditto reading to 20 in.	... ...	34 0 0
	8.—6 in. ditto ditto, with axis level and lantern, reading to 10 in.	... ...	37 10 0
	9.—8 in. ditto ditto ditto ditto	... ...	49 0 0

Fig. 5	10.—4 in. Everest's Theodolite	... ...	£21 0 0
	11.—5 in. ditto		24 5 0
	12.—6 in. ditto reading to 20 in.	... ...	27 7 0
	13.—7 in. ditto reading to 10 in.	... ...	36 15 0

The above are all divided on silver.

Nos. 1 to 5 inclusive are made with four levelling screws, if three screws are preferred, this should be mentioned in ordering; the price is the same.

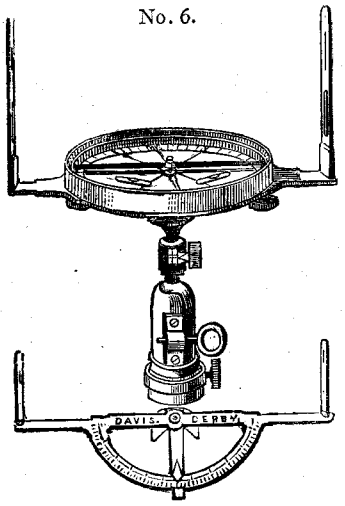
Fig. 6	14.—5 in. Hoskold's Miner's Transit Theodolite, without sights and diagonal eye piece	... ...	£25 10 0
	15.—6 in. ditto ditto ditto ditto	... ...	30 5 0
	16.—5 in. ditto ditto with diagonal eye piece and sights	... ...	27 15 0
	17.—6 in. ditto ditto ditto ditto	... ...	33 10 0

The above Nos., 14 to 17 inclusive, can be had with a supplementary telescope for £7 10s. extra.

Extra legs, leather sling cases, to order.

MINERS' DIAL

RIGID & POCKET DIALS.



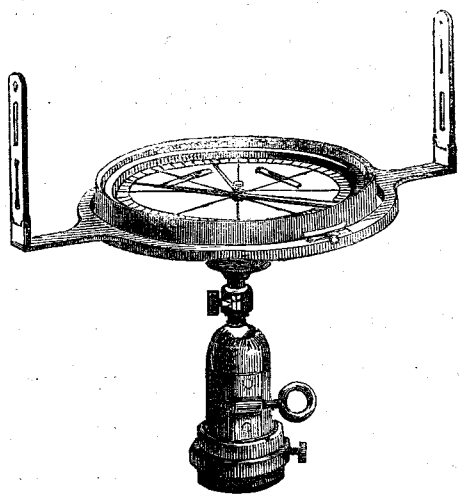
No. 6.

No. 1.—2½ in. Pocket dial, in mahogany, with folding sights... ...	£1	5 0
„ 2.—4 in. ditto ditto as used in lead mines	2	5 0
„ 3.—4 in. Dial, in mahogany, 2 levels, ball and socket joint, on jointed legs	4	15 0
„ 4.—5 in. ditto ditto ditto	5	15 0
„ 4½—6 in. ditto ditto ditto	6	15 0
„ 5.—5 in. *Brass* Dial, 2 levels, ball and socket joint, mahogany case, jointed legs	8	5 0
„ 6.—5 in. ditto, with rack and pinion vernier (fast needle) to read to 3 minutes (see plate No. 6)	13	5 0
Arc for ditto with folding sights (see plate) extra	1	15 0

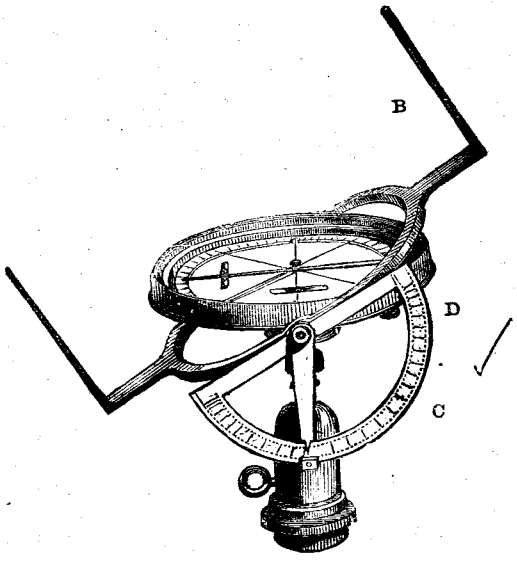
THE HEDLEY DIAL. (Original Construction).

No. 7.—5 in. Hedley Dial, admirably adapted for use in mines of considerable dip	£9	5 0
„ 8.—5 in. ditto, with arc	11	5 0
„ 9.—6 in. ditto, with arc	13	5 0
„ 10.—5 in. Hedley Dial, with rack and pinion vernier, and are to adapt at pleasure (see plates A & B)	13	5 0
„ 11.—6 in. ditto, with vernier, without arc	13	5 0
„ 12.—6 in. ditto, with vernier and arc	15	10 0

Larger Sizes than 6 in. are made to order.



A. The Dial as an Ordinary Rigid One.
B. Inclined to suit the declivity of a Pit.



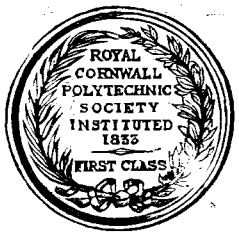
C. Arc attached at pleasure, for ascertaining the angle or dip, or for taking a longer sight.
D. Screw for moving the Vernier.

A well made ordinary Dial may often be converted into a Hedley.

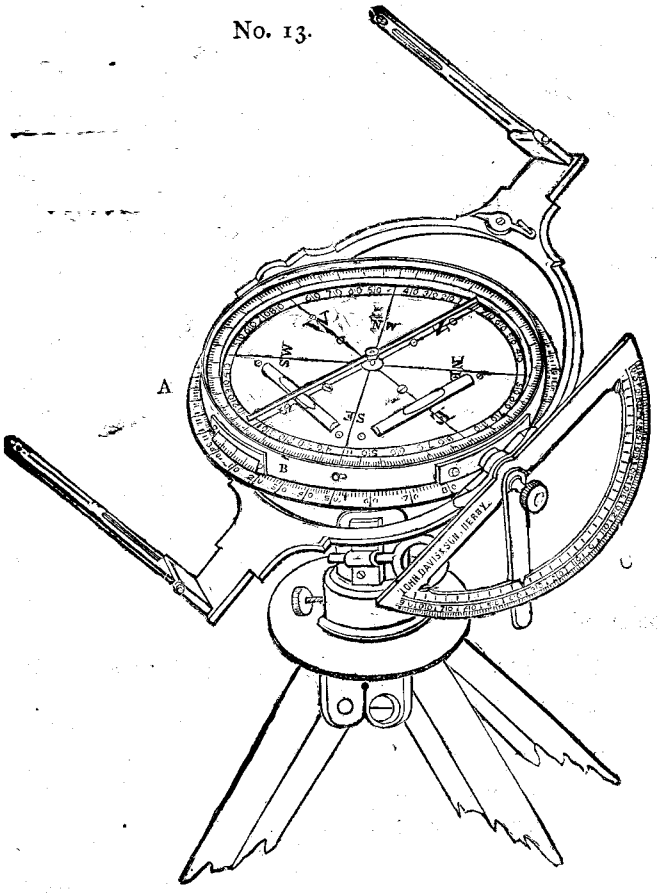
LEAN'S MINERS' DIALS, with sights and telescope £18 18 0

DAVIS'S IMPROVED HEDLEY DIAL.

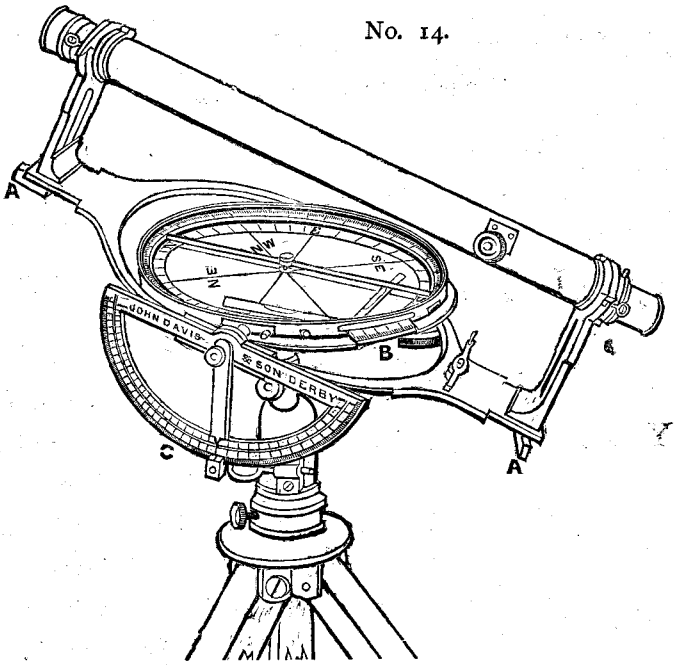
FOR DAVIS'S IMPROVED HEDLEY DIAL.



No. 13.



No. 14.



This dial combines all the latest improvements of the best Hedley, with the outside vernier of the Theodolite.

The improvement in this dial consists of an arrangement by which the bearings are taken simultaneously with loose needle and vernier, the latter **automatically** checking the former, thus any error arising from incorrect reading or from any local attraction is detected. Accurate surveying with this instrument can thus be relied upon, which cannot be said of any other miners' dial. Divided plate at A, clamped to the legs, thoroughly protected.

Vernier at B, reading on outside divided plate A, and fixed to body. Arc at C adapted at pleasure.

The Hedley sights and the vernier plate may be clamped, and the dial can then be used as an ordinary rigid one. A great advantage of this construction is that if the dial be out of adjustment, it is at once detected by comparing the vernier and needle readings. The weight is not more than that of the ordinary Hedley, and it is equally compact.

A Telescope may be substituted in place of the sights, thus transforming the Hedley Dial into a **Theodolite, with this** advantage; it is less than half the weight and size, and the figuring of the vernier ring and the needle ring are so arranged that the readings tally.—See No. 14.

No. 13.—5 in. Davis's Improved Hedley Dial, as per illustration, complete	...	...	...	...	£15	15	0
„ „ —6 in.	ditto	ditto	ditto	...	...	...	...	17	17	0
„ 14.—5 in.	ditto	with Telescope and sights interchangeable	...	...	...	...	20	15	0
„ „ —6 in.	ditto	ditto	ditto	...	...	...	...	23	0	0
Extra if ordered with parallel plates in place of the ball and socket joint (much recommended)	...							1	0	0

EXTRAS USUALLY ORDERED WITH DIALS—

All our prices for dials include a set of legs, with one set of joints; for very shallow seams it is necessary to have an extra set of joints in legs, the increased cost being 12s.

Extra set of legs, with one set of joints, and cup for lamp for fast needle dialling	...	...	...	£2	2	0
Extra set of short (half size) legs, with lamp cup	...	...	...	...	...	...	...	1	12	0
Leather case for 5 in. dial, with shoulder strap	...	...	...	...	...	...	...	0	15	6
Ditto 6 in. ditto	...	...	...	...	...	...	...	0	18	6

For Dialling Lamps, Lanterns, Chains, Protractors, Drawing Instruments, &c., see Index.

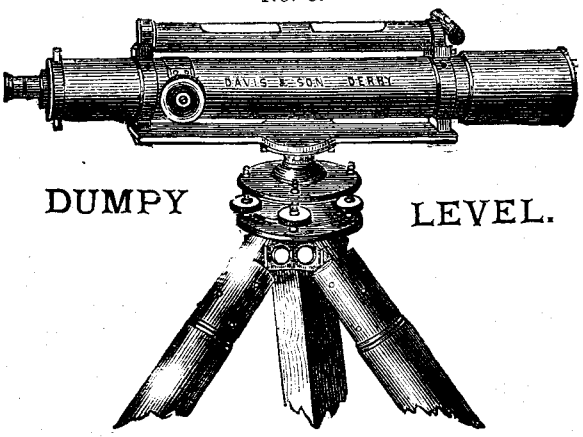
DUMPY or GRAVATT LEVELS.

(SEE PLATE.)

16 in.	£17 10 0
14 in.	14 0 0
12 in.	12 10 0
10 in.	11 5 0

Compasses to any of above, 30s. extra.

No. 8.



DUMPY LEVEL.

BUILDERS' or DRAINERS' LEVELS.

12 in. ... ... £5 15s. 8 in. ... ... £4 18s.

Cheaper ditto, with sights, tripod stand, and case, £2 10s.

Y LEVELS, 14 in. ... £13 10s. 12 in. ... £12 10s. 10 in. ... £11 10s.

Compasses to any of above, 30s. extra.

Abney's Level with arc for dips ... ... £2 0s.

All descriptions of hand and pocket Levels.

Sling cases, in solid leather, for any of the above Levels from 20s. to 32s.

Levels repaired and re-adjusted.

LEVELLING STAFFS.

16 feet Sopwith Staff, in 3 lengths,		painted any pattern	£3 0 0
16 feet	ditto,	papered	2 12 0
14 feet	ditto,	painted	2 12 0
14 feet	ditto,	papered	2 5 0
10 feet ordinary staff		ditto	1 10 0

PIT LEVELLING STAFFS.

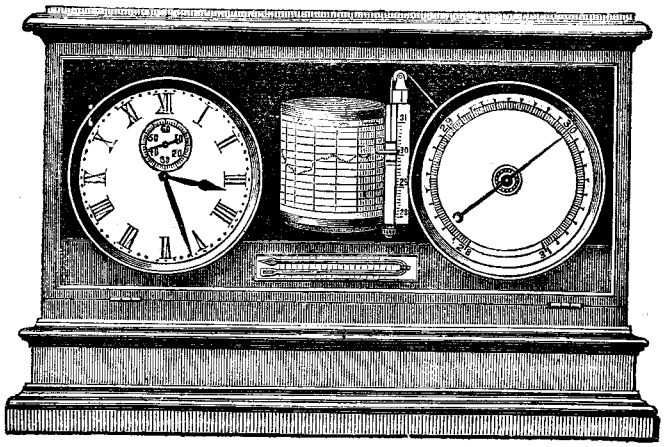
9 feet Sopwith Staff, to close down to 3 ft. 6 in.			£1 18 0
6 feet	ditto,	ditto to 2 ft. 6 in.	1 15 0

Papers for Level Staffs, per foot, 2d.

Triangular iron plate, with chain and ring, to place a staff on, 2s. 6d.

ANEROID BAROMETERS.

SELF RECORDING ANEROID BAROMETER.



This Illustration is one-eighth the size of the Instrument.

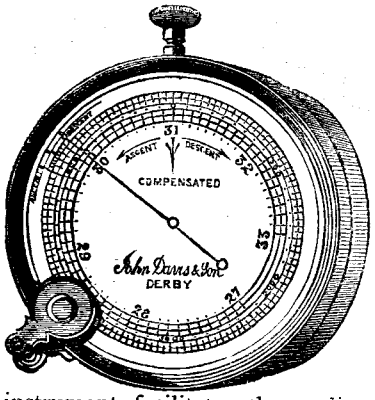
This Instrument is designed to show at a glance the various fluctuations that have taken place in the Barometer. It consists of a large and powerful Aneroid and an eight-day clock, each with eight-inch dials; between these is placed, in a vertical position, a cylinder five inches in diameter, having a paper attached to it ruled to coincide with the Barometer scale. Near to this paper, a pencil, guided by a rod of metal, is moved up and down as the action takes place in the Aneroid, and at every hour the pencil is made to mark the paper by simple mechanism connected with the Clock.

By this means a black dotted curved line is produced, showing at a glance the height of the Barometer—whether it is falling or rising—for how long it has been doing so, and at what rate the change is taking place—whether falling at the rate of one-tenth per hour, or one-tenth in twenty-four hours; all of which are particulars most essential to know when prejudging the weather, and which can only be obtained from an ordinary Barometer by very frequent and regular observations.

Price of Recording Aneroid, in handsome walnut, mahogany, or oak case, with Maximum and Minimum Thermometers ... ... 25 Guineas.

DAVIS'S MINING AND SURVEYING ANEROID.

READING TO ONE FOOT.



This instrument is specially for the use of Mining Engineers and Surveyors, for the purpose of readily ascertaining slight variations in gradients, levels, &c., and from its extreme sensitiveness, will be found of considerable utility in mining and surveying work generally. Besides its extreme sensitiveness, the speciality claimed for the instrument is an arrangement of the scale of altitudes which admits of subdivision by a vernier, hitherto impracticable, owing to the altitude scale in ordinary use being a gradually diminishing one, to which a vernier cannot be applied. In the present instrument the action has been so adjusted as to give accurate readings upon a regular scale of altitudes, the barometrical scale of inches being made progressive in length so as to afford the correct relative readings with the scale of altitudes. For mining operations the entire circle of the dial is graduated to represent 6 in. of the mercurial column—that is, from 27 in. to 33 in. This scale affords observations from about 2,000 ft. below sea level to 4,000 ft. above. The finest division of the altitude scale (1-100th) represents 10 feet measurement, which can be again divided by the vernier scale to single feet. The vernier scale is moved by rack-work adjustment, and a lens, which rotates on the outer circumference of the instrument, facilitates the reading of the minute quantities. For surface surveying purposes, where it is not required to be used below sea level, the instrument is made with the scale divided from 25 to 31 in.—thus giving an altitude scale of 6,000 ft. above the sea level only; and with this open scale, and the assistance of the vernier, the same minute readings to single feet may easily be taken. These instruments are also constructed for measuring much greater altitudes—that is 10,000, 15,000 or 20,000 feet—but with these scales the measurement cannot be made quite so minute as in the more open scale. The instrument is $4\frac{1}{2}$ in. in diameter, and is provided with a leather sling case—thus making it sufficiently portable for all practicable purposes.

Price ... ... £7 10s.

POCKET ANEROID BAROMETERS.

No. 1.—Aneroid Barometer, pocket size, with inch scale only, compensated for temperature, best make £3 3 0

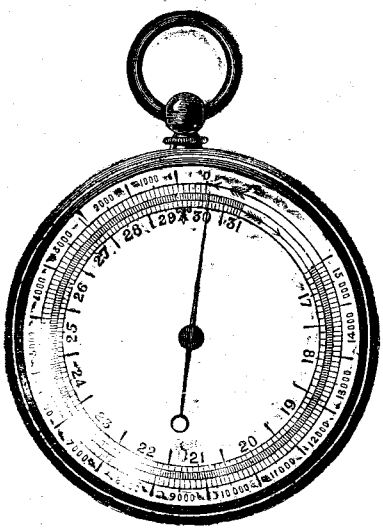
„ 2.—Ditto ditto with altitude scale for ascertaining altitudes (see plate) 3 10 0

„ 3.—Ditto ditto with Thermometer on face and adjustable altitude scale 3 15 0

„ 4.—Ditto ditto with altitude scale, and keyless watch arrangement, for moving altitude scale 3 15 0

Nos. 1 to 4 inclusive, are made in gilt and nickel silver. In ordering, it should be stated which is preferred, price is the same.

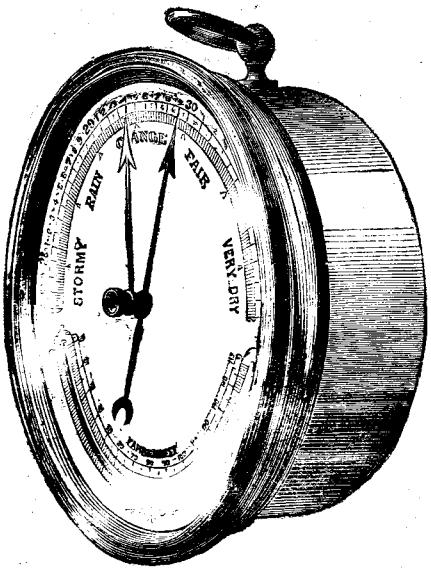
No 2.



SMALLEST POCKET ANEROIDS.

(Size of a Shilling.)

No. 5.



In eighteen carat gold £5 5 0

In silver 4 5 0

In gilt 3 18 0

OFFICE ANEROIDS.

4½ in. diameter (see plate 5) ... 21s. 38s. 42s. 50s. to £5 10 0

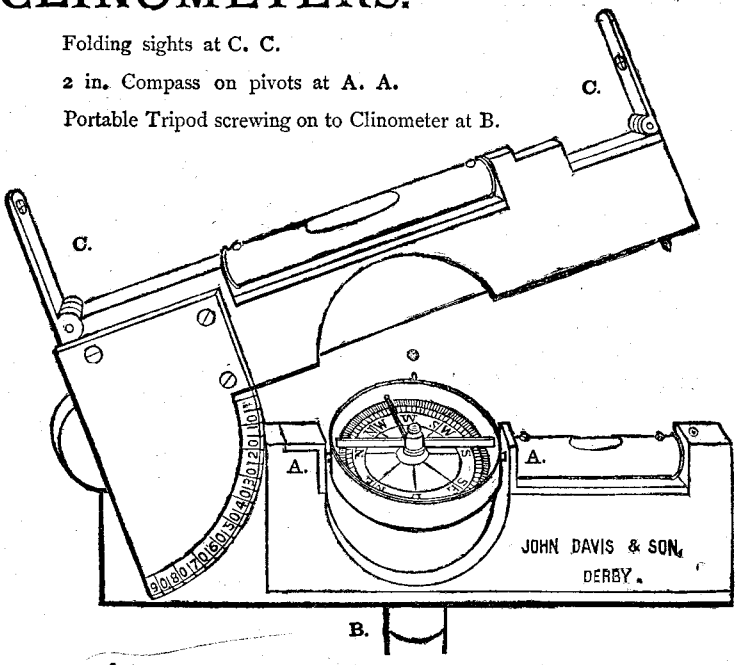
Carved oak stand for ditto ... ... each 0 15 0

CLINOMETERS.

Folding sights at C. C.

2 in. Compass on pivots at A. A.

Portable Tripod screwing on to Clinometer at B.



DAVIS'S NEW CLINOMETER.

The Clinometer as shewn, is capable of doing all the work of the Dumpy Level and the Hedley Dial approximately, although it is not intended to take the place of either. Where great accuracy is not required it will save time and a more expensive instrument, and may be used where a level or dial cannot, on account of its extreme portability, its outside dimensions being 6½ in. long, ½ in. wide, 3 in. deep. Price complete in case, with portable tripod £3 10 0

Ditto with adjusting arrangement to set the instrument 3 18 0

Ordinary Clinometer, with sights and compass, in case, with useful tables marked on sides 1 18 0

Ditto without sights 1 5 0

PLUMB BOBS, in brass, 3/- to 10/- Large size 4/6

Ditto improved with groove to wrap cord round, 4/- each.

CROSS STAFFS.

Plain Cross Staff, 6/6 to 12/6

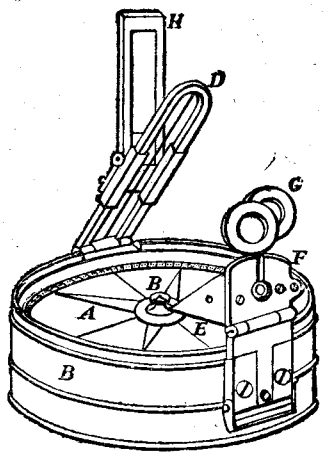
Ditto, with compass, 12/6 to 25/-

Ditto, with compass and vernier, 42/

OPTICAL SQUARES, 21/-

PRISMATIC COMPASS.

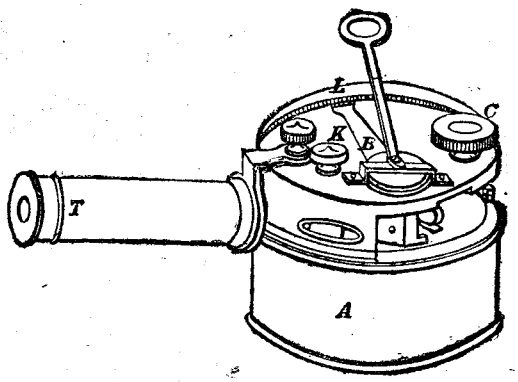
PRISMATIC COMPASS.



2½ in. compass in leather sling case	£2 5 0
Ditto, with mirror and shades	2 15 0
Ditto, with aluminium 3 in. compass	4 15 0
Ditto ditto 4 in. „	5 15 0

POCKET SEXTANT.

POCKET SEXTANT.



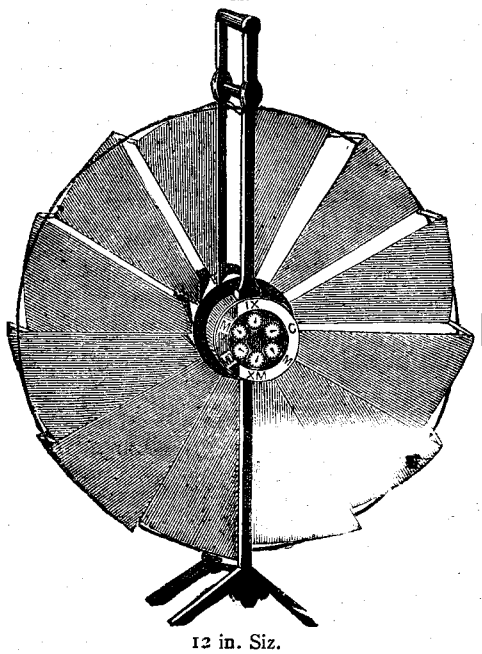
Pocket Sextants in morocco case	£4 0 0
Ditto, with telescope in leather sling case	4 15 0
Ditto, with supplementary arc	5 12 0
Stand for Prismatic Compass or Sextant	1 15 0

MANUFACTURERS BY APPOINTMENT OF

BIRAM'S PATENT ANEMOMETER,

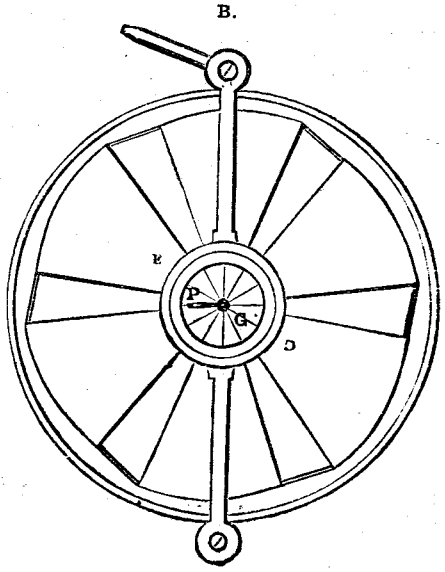
FOR ASCERTAINING THE CURRENT OF AIR IN MINES, &c.

A.



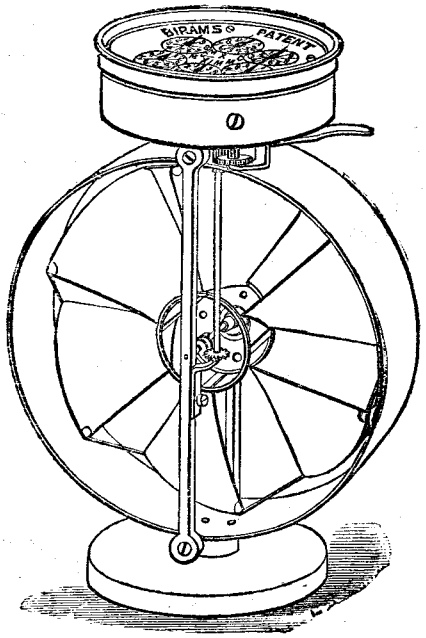
12 in. Siz.

B.



4 in. Size.

C.

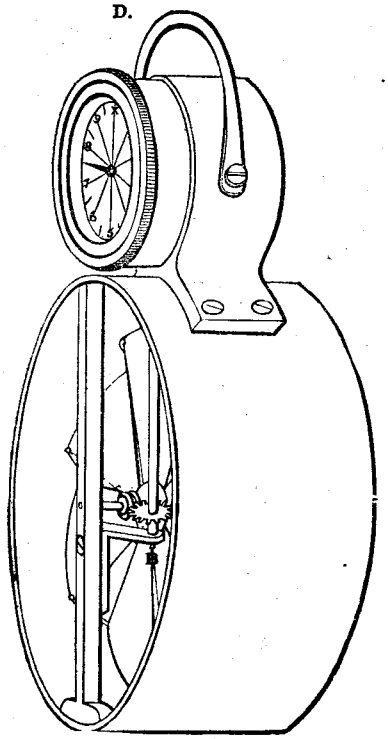


4 in. new Anemometer.

	£	s.	d.
Fig. A.—12 in. diameter, reading up to 10,000,000 feet ...	4	4	0
6 in. ditto ditto 1000 feet	3	3	0
6 in. ditto, with disconnecting motion, reading up to 1000 feet	3	13	6
,, B.— 4 in. ditto, reading up to 100 feet	2	10	0

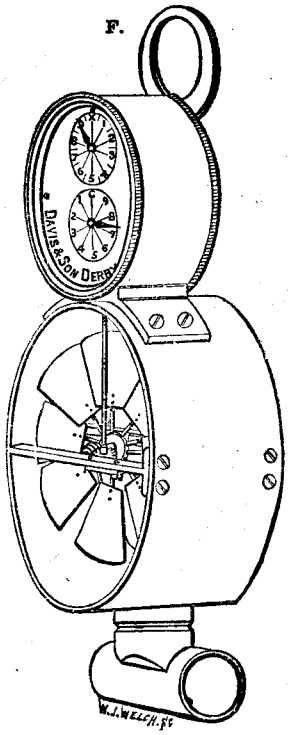
	£	s.	d.
Fig. C.—4 in. ditto, new, reading up to 10,000,000 feet ...	4	4	0
,, D.—2 in. ditto, reading up to 100 feet	2	10	0
,, F.—2 in. ditto, reading up to 1000 feet, with tube for holding with a stick	3	3	0

D.



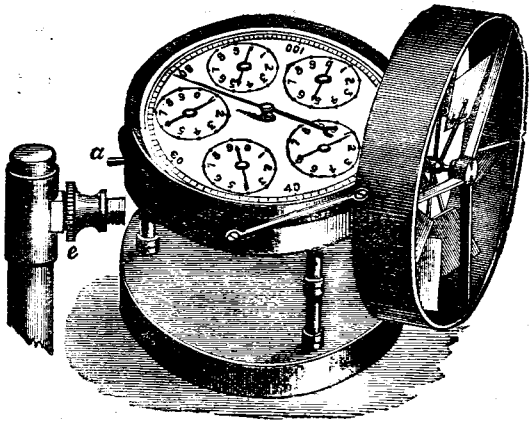
2 in. Size.

F.



2 in. Size.

G.



THE

NEW POCKET ANEMOMETER

OR AIR METER,

With Six Dials, reading to 10,000,000 feet, with stick holder and case £4 4 0

Extra with leather case, 6/6

Ditto, with 2 dials, reading to 1000 feet 3 15 0

Extra with leather case, 6/6

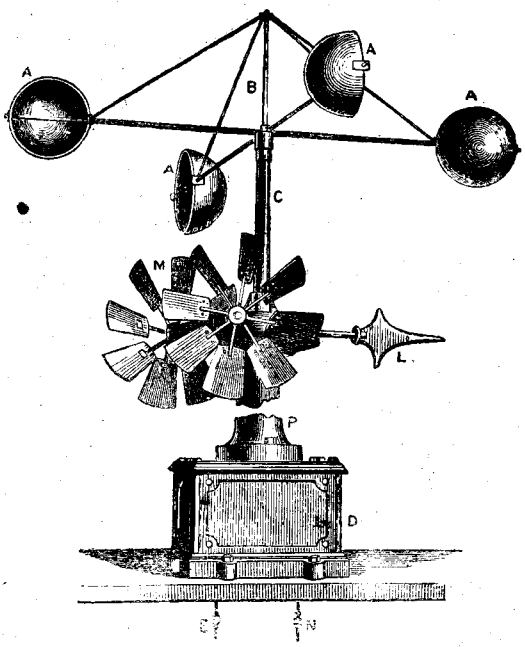
BOTH OF THESE INSTRUMENTS HAVE DISCONNECTERS.

ANEMOGRAPH,

OR

SELF-RECORDING WIND GAUGE,

As adopted by the Meteorolgical Committee of the Royal Society.

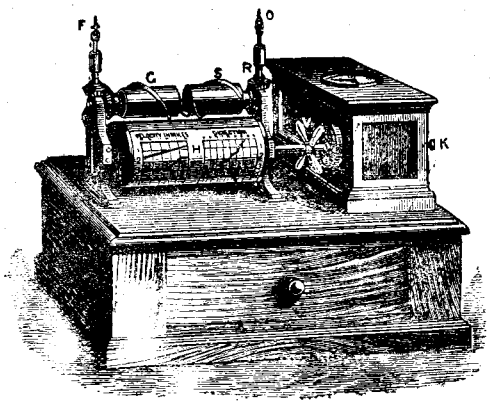


The purpose of this instrument is to register the velocity and direction of the wind from day to day. It is the form designed and arranged by Mr. BECKLEY, of the Kew Observatory, and has been adopted by the Board of Trade.

It consists, first, of a set of hemispherical cups and vanes, which are exposed on the roof of the house; and, secondly, of the recording apparatus, which may be placed in the hall or library, or elsewhere inside the house.

The motion imparted to the hemispherical cups by the wind is communicated to the steel shaft B, which, passing through the hollow shaft C, and having at its lower end an endless screw, works into a series of wheels in the iron box D, which reduces the angular velocity 7,000 times. At the required distance the motion, having emerged at E, is connected with F, where, by means of bevelled wheels, it moves the spiral brass registering pencil C, which is arranged so that each revolution records 50 miles of velocity on the prepared paper H.

The direction of the wind is indicated by the arrow L, which is kept in position by the fans M. These communicate, by an endless screw and train of wheels, through the shaft C and the box D to the recording apparatus, which consists of a spiral brass pencil, which in one revolution records variations through the cardinal points of the compass, on the same prepared paper as that which receives the record of velocity.



The paper is held on the drum by two small clips, and may be readily changed by unclamping the cross V, without disturbing the drum or any other part of the instrument.

Price, £80.

Special Estimates, where the Recording instrument is placed on any floor below that nearest the roof.

WEATHER VANES

With Indoor or (Clock-face) Indicator, to shew the direction of the Wind.

Prices on receipt of particulars.

SAMPLE ESTIMATE.—Copper Wind Vane, with 60 ft. rods in straight lengths, in iron casing for protection; a 10 in. Clock-face Indicator covered with plate glass ready for fixing, £20.

PIT BAROMETERS.

FOR SURFACE OR UNDERGROUND.

No. 1.—Best Colliery Barometer in oak, with enamelled face, with vernier to read to $\frac{1}{100}$ in. with attached thermometer £2 10 0

No. 2.—Ditto, ivory face, second quality 1 15 0

No. 2A.—Improved Colliery Barometer in substantial oak frame, glass covered face, with thermometer (see plate No. 2A) 2 5 0

No. 3 and 4.—Best Surface Barometer, with glass covered face and two verniers (see plate No. 4) 2 15 0

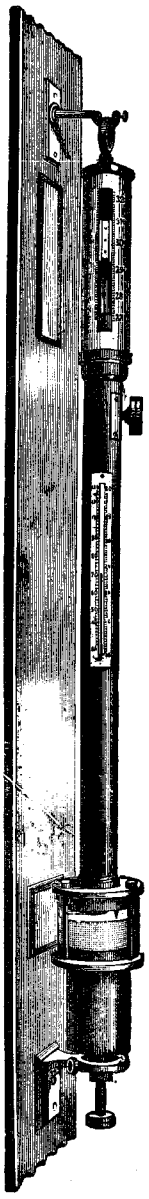
No. 5.—Second quality Surface Barometer 1 5 0

The Colliery Standard Barometer, with Kew Certificate (see plate) 5 15 0

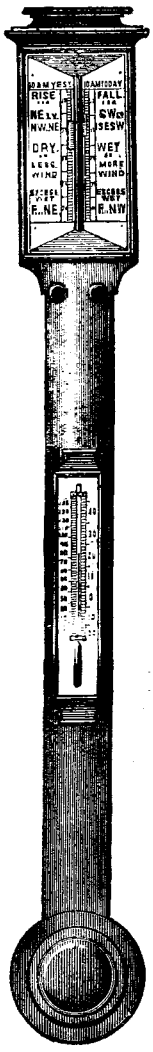
All the above have portable tubes with safety travelling screws, and cannot be put out of order in transit.

For other descriptions of Barometer see Special List on application.

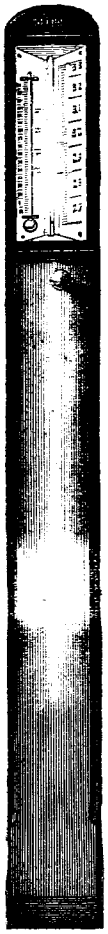
COLLIERY STANDARD.

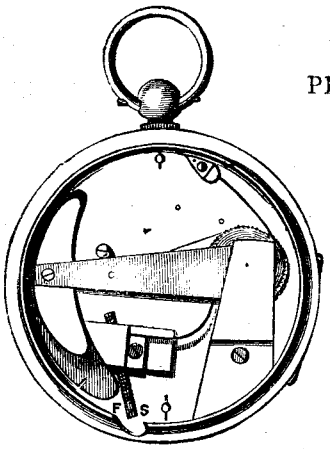


No. 4.

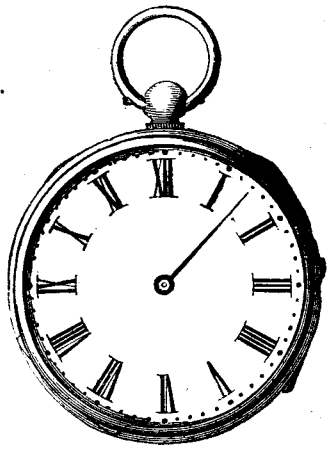


No. 2A.





PEDOMETER.



PEDOMETERS.

The Pedometer enables the wearer to make accurate measurements of the distance walked. It can be adjusted with facility to long or short steps.

Price, in nickel case ... £2 10 0
„ silver case ... 3 18 0

PASSOMETER.

The Passometer is for the use of Surveyors, Civil and Military Engineers, for obtaining an approximate idea of distances by pacing them. This instrument prevents the possibility of error through incorrect counting, and precludes that absorbing attention which the counting, of any considerable number of paces accurately, requires.

Price, in silver cases £3 18 0

THERMOMETERS of all descriptions.

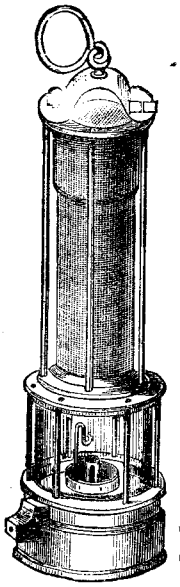
(Upcast, Shaft and Pit, see page 28.) Special Illustrated List on application.

SUGAR THERMOMETERS.

Usual pattern, best make ... ... 25s. each.

Manufacturers by Appointment of the Bidder Patent Magnetic Lock Lamp.

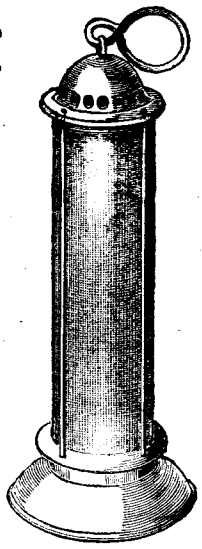
No. 1.



CLANNY.

SAFETY LAMPS.

No. 4.



STEPHENSON.

No. 1 Best Clanny Lamp	each	£0 7 0
Ditto with leather washers and swivel ring	,,	0 7 6
These Clanny's are highly recommended, the washers render the lamps much safer and prevent breakage, as they form a cushion for the expansion of the glasses—		
No. 2 Second Quality Clanny Lamp	each	0 6 0
Ditto with leather washers and swivel ring	,,	0 6 6
No. 3 Best Davy Lamp	,,	0 5 0
No. 4 Best Stephenson Lamp	,,	0 7 6
Lead Locks to any of the above Lamps, each extra	,,	0 0 6
Clanny Glasses	per doz.	0 5 10
Stephenson ditto	,,	0 4 6
Clanny Gauzes	,,	0 7 0
Davy ditto	,,	0 7 0
Stephenson ditto	,,	0 9 0
Clanny **Dialling** Lamps, large size, with reflectors	each	0 13 6
Ditto ditto medium ditto	,,	0 11 6
Ditto ditto small size ditto	,,	0 9 6
Copper Surveying Lanterns with reflectors ...	,,	0 7 6

BIDDER PATENT MAGNETIC LOCK LAMP.

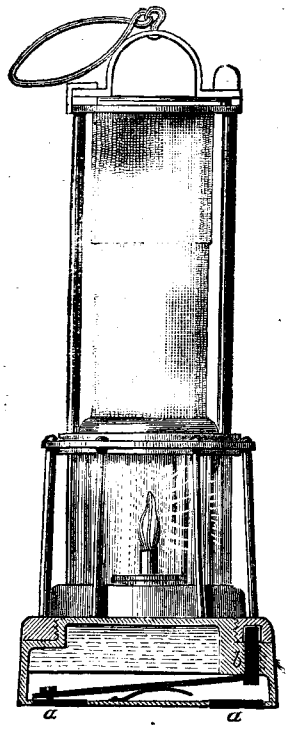
Bidder Clanny Lamp	£0 11 6
,, Davy ditto	0 7 0
,, Stephenson ditto	0 11 6
Magnet for opening ditto	4 13 6

All previous inventions have hitherto failed in preventing the men from opening their Lamps with forged keys or other implements, and it is well known that a large proportion of the explosions have occurred through this cause, and therefore the only safety is in having a Lamp they cannot tamper with or open.

These Lamps are Self-locking, and can only be opened by the aid of a powerful magnet, which is kept in a strong box, under lock and key. One of the magnets is put in charge of the lamp cleaner, and to obviate the necessity of the men coming from a distance to the Lamp Room to have their lamps re-lighted, when put out by accident or some other cause, a magnet can be put in charge of a fireman whose duty it will be to re-light it.

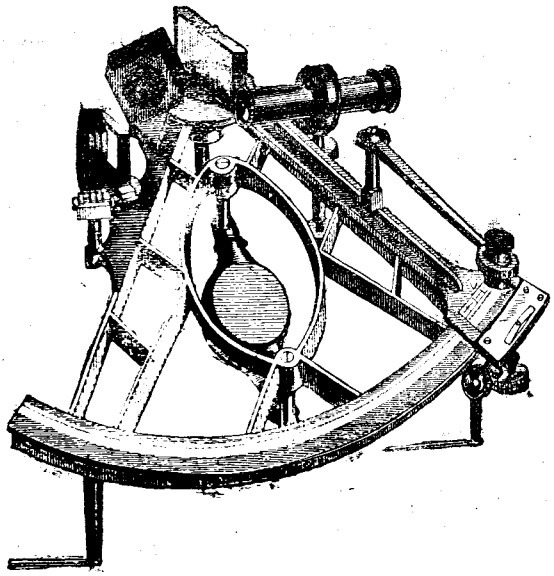
The Locking arrangement, as will be seen, is extremely simple, and completely enclosed within the Lamp, and protected from injury.

A number of these Lamps can be opened in the time it will occupy to open one of the common lock, and the accompanying engraving will at once convince the mining engineer of their superiority over every other Lamp in use.



BIDDER'S CLANNY LAMP.

SEXTANTS (Ships').



PILLAR SEXTANTS.

No. 1. Eight-inch Pillar Sextant, figured to 160°, divided on gold to 10 seconds £20 0 0

" 2. Eight-inch Pillar Sextant, in platinum ... 18 0 0

" 3. Ditto ditto in silver 16 15 0

" 4. 6 in. or Cadet Metal Sextant, flat faced limb, divided on silver to 10 seconds, fixed horizon adjustments and achromatic telescopes, in polished mahogany case £6 6 0

" 5. 8 in. or Cadet Metal Sextant, flat faced limb, divided on silver to 10 seconds, fixed horizon adjustments and achromatic telescopes, in polished mahogany case 7 7 0

" 6. 6 in. three circle flat faced Sextant, divided on silver to 10 seconds, fixed horizon adjustments with achromatic telescopes, in polished mahogany case 6 10 0

" 7. 8 in. three circle flat faced Sextant, divided on silver to 10 seconds, fixed horizon adjustments with achromatic telescopes, in polished mahogany case 7 5 0

" 8. 6 in. three circle flat faced Sextant, divided on silver to 10 seconds, fixed horizon, with saddle piece and vertical key adjustments 6 15 0

" 9. 6 in. three circle flat faced Sextant, fixed horizon adjustments, achromatic telescopes, divided on silver to 10 seconds, bronzed, and in square lined case 7 10 0

" 10. 8 in. three circle flat faced Sextant, fixed horizon adjustments, achromatic telescopes, divided on silver to 10 seconds, bronzed, and in square lined case 8 10 0

" 11. 4 in. three circle flat face Sextant, edgebar, triangular pattern, fixed horizon adjustments, protected by straps, divided on silver to 10 seconds, reflector to nonus on index, complete in case ... 8 10 0

" 12. 6 in. three circle flat faced Sextant, edgebar, triangular pattern, fixed horizon adjustments, protected by straps, divided on silver to 10 seconds, reflector to nonus on index, complete in case ... 9 5 0

" 13. 8 in. three circle flat faced Sextant, edgebar, triangular pattern, fixed horizon adjustments, protected by straps, divided on silver to 10 seconds, reflector to nonus on index, complete in case ... 9 15 0

" 14. 6 in. three circle flat faced Sextant, with bridge to handle, fitted complete as above, or with saddle piece adjustments bronzed 9 10 0

" 15 8 in. three circle flat faced Sextant, with bridge to handle, fitted complete as above, or with saddle piece adjustments bronzed 10 10 0

QUADRANTS.

No. 1. 9 in. metal frame Quadrant, divided on ivory, with tangent screw to index, fixed adjustments in case £2 15 0

„ 2. 9 in. metal frame Quadrant, with five shades for colored screen glasses 3 0 0
Telescope and shutter to above 7s. 6d. extra.

„ 3. 9 in. metal frame Quadrant as above, with handle, divided on ivory to 20 seconds, two telescopes, bronzed or bright, horn magnifier, in case 3 10 0

„ 4. Best metal handle Quadrant, tulip pattern, divided on ivory to 15 seconds, fixed adjustments, open swing arm microscope, seven shades for screen glasses, in case 4 10 0

„ 5. Best metal handle Quadrant, with saddle piece and vertical screw adjustments 4 17 6

„ 6. Ditto ditto divided on silver to 15 seconds 5 0 0

„ 7. Ditto ditto ditto ditto with saddle piece and vertical key adjustments 5 5 0

CHRONOMETERS from ... ... £30.

PARTICULARS ON APPLICATION.

COMPASSES (Ships').

Brass bowl steering Compasses with agate cap, in ash boxes—

4½	6	7	8	9	10	11	12 inches.
8/6	12/-	13/6	15/-	16/6	18/-	21/-	23/6 each.

No. 1. 10 in. brass amplitude steering Compass, with sights, agate cap £1 8 0

„ 2. 12 in. Ditto ditto ditto ditto 1 11 6

„ 3. 10 in. double dipping needle Compass 1 19 0

„ 4. 12 in. ditto ditto 2 2 0

„ 5. Bright hanging Compass for cabin 1 7 0

Best Prismatic Azimuth Compasses, for Ships' use.

No. 6. Prismatic Azimuth Compasses with sights and prisms—

	6	7	8	9 inch cards.
	£6 10/-	£7 17/-	£9 12/-	£12 12/-
Stands	35/-	35/-	38/-	45/-

„ 7. Azimuth Compass, with divided silver ring and folding sights moving on a centre, in case ... £5 10 0
Stand for above, £1 7/-