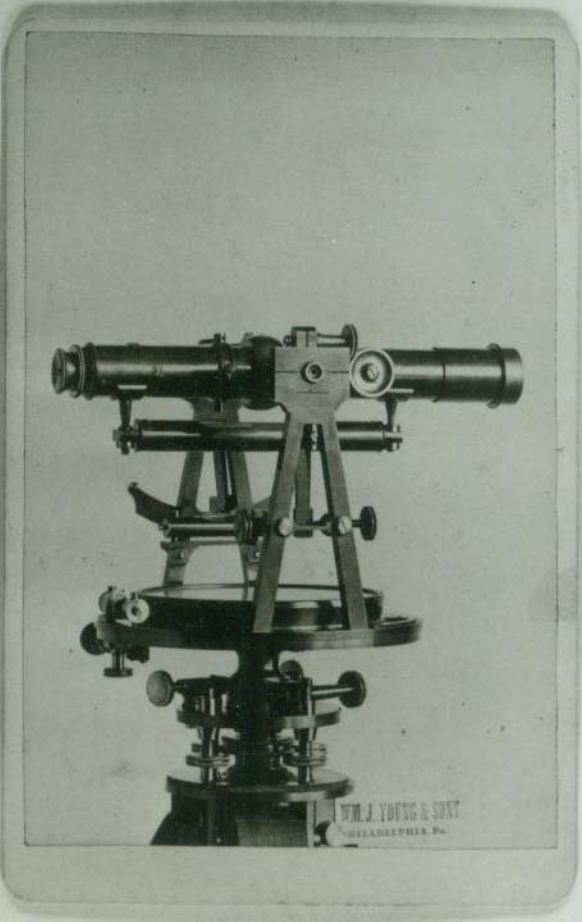
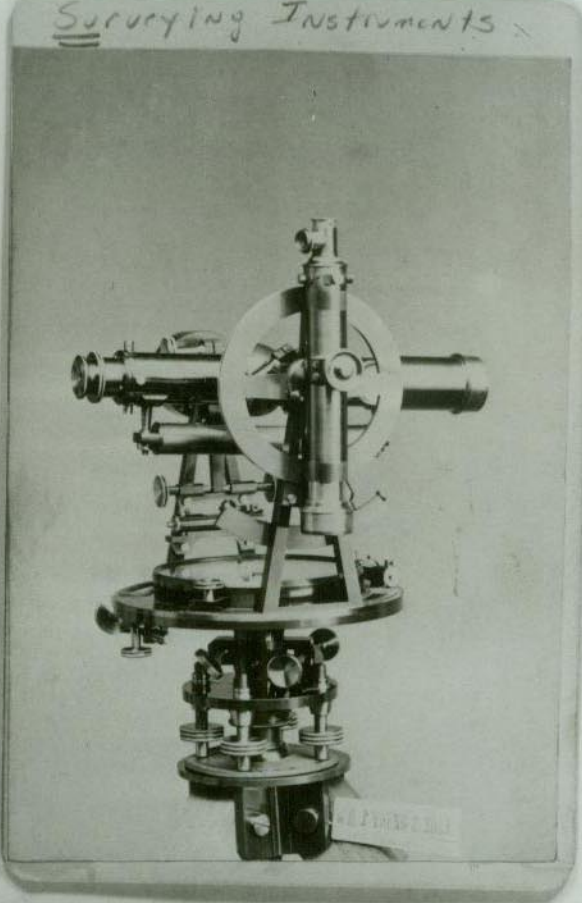
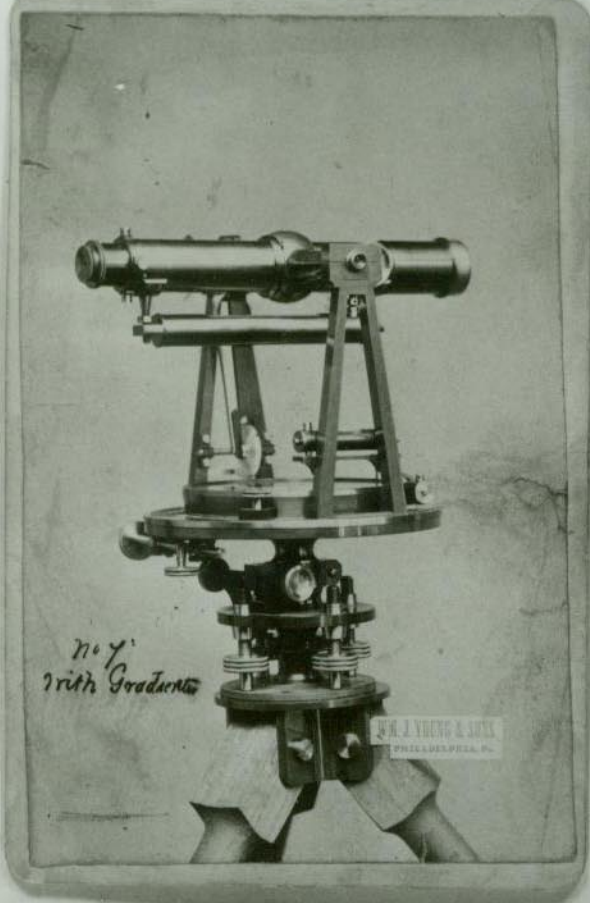


Surveying Instruments



no. 14

photo # 29

No. 7

photo # 24

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no 6 1/2

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Source: neg. #9217

no. 12

photo # 23

photo # 27

No. 14. or Mining Transit, #1.

General dimension same as No. 6 or 7. With Level to Telescope and Vertical arc.

Mining attachments
Side Telescope revolving full vertical circle independent of ~~vertical circle~~, centre Telescope.

Diagonal Eye piece.
Full vertical circle graduations on silver counter-balance.

Vertical circle with side Telescope and counter-balance detachable \$300.
With side Telescope detachable but attached to axis, & revolving, not independent of, but along with centre Telescope, no vertical circle \$275.
Graduations of plates on solid silver.

Clamp & tangent to vertical circle. Extra \$25.
Stadia hairs fixed. Extra \$3.
" " adjustable " - \$8.

These instruments are furnished with Young's Improved Eye piece, Slide Protector, Tangent, and Shifting Tripod.

Wm. J. Young & Sons, 43, N. 7. St. Philada.

Surveying Instruments

No. 7.

FOR CITY ENGINEERING, BRIDGE, TUNNEL, &c.

- Long centre,
- Two outside verniers, reading minutes or decimals,
- Graduations on silver, $6\frac{1}{4}$ or $6\frac{3}{4}$ inches,
- Needle, $4\frac{1}{2}$ or 5 inches,
- Tangent to plates,
- Telescope, large and powerful, either inverting or erect.
- Shifting Tripod,
- Improved attachment to tripod,
- Screws pack in box, \$225 00
- With level to telescope, same as used on level instrument, with clamp and opposing screws to axle, 250 00
- With level clamp, &c., and arc for vertical angles, 265 00
- GRADUATED TO READ 20 SECONDS OR 30 SECONDS, EXTRA, 10 00

Without Improved Eye Piece, Slide Protector, and Improved Tangent, \$10 less.

These instruments are furnished with
Young's Improved Eye Piece,
" " Slide Protector,
" " Tangent.
Vernier reading either minutes or decimals:

W. J. YOUNG & SONS,
ENGINEERING
Instrument Manufacturers,
No. 43 North 7th St., Philada.

ENGINEERS' STATIONERY, TAPES, CHAINS, DRAFTING INSTRUMENTS, &c.

With graduations including limb & silver plate \$2.65

Surveying Instruments

No. 6i.

TRANSIT, with Level to Telescope and Vertical Arc.

- Long centre.
- Two outside verniers, double, reading minutes or decimals, or one minute and one decimal.
- Graduations, $6\frac{1}{4}$ or $6\frac{3}{4}$ inches.
- Needle, $4\frac{1}{2}$ or 5 inches.
- Tangent to plates.
- Vertical adjustment to telescope.
- Shifting tripod,
- Improved attachment to tripod.
- Screws packed in box.
- With Level, and opposing or tangent screws to telescope, and with vertical arc, \$240 00
- Same instrument, with vertical arc, 225 00
- Same instrument, plain, 200 00

These instruments are furnished with
Young's Improved Eye Piece,
" " Slide Protector,
" " Tangent.

W. J. YOUNG & SONS,
ENGINEERING

Instrument Manufacturers,

No. 43 North 7th St., Philada.

ENGINEERS' STATIONERY, TAPES, CHAINS, DRAFTING INSTRUMENTS, &c.
IMPROVED HANDED LEVEL,
Aneroid Barometers,

Without Improved Eye Piece, Slide Protector, and Improved Tangent, \$10 less.

With Gradient Attachment (in place of opposing screws), and level to telescope, Extra to plain Transit, \$40.00.

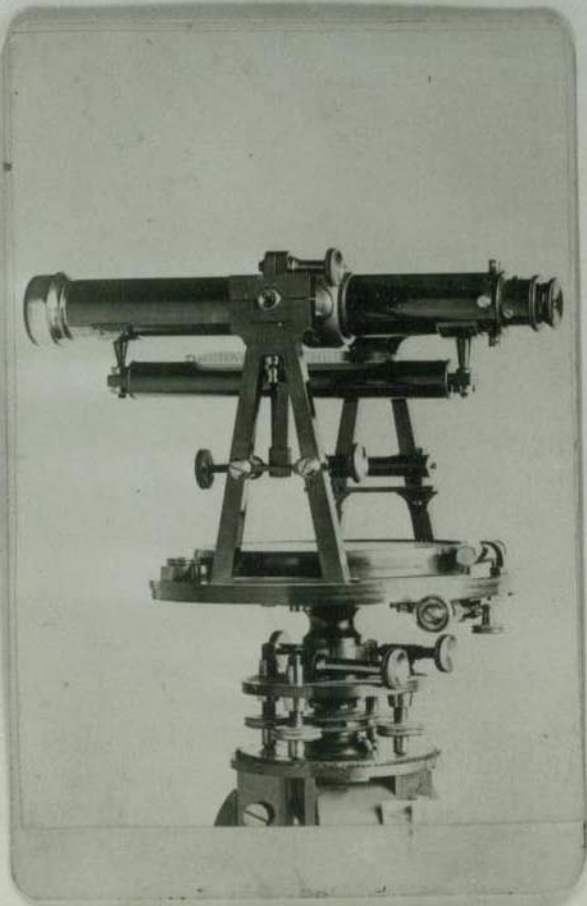
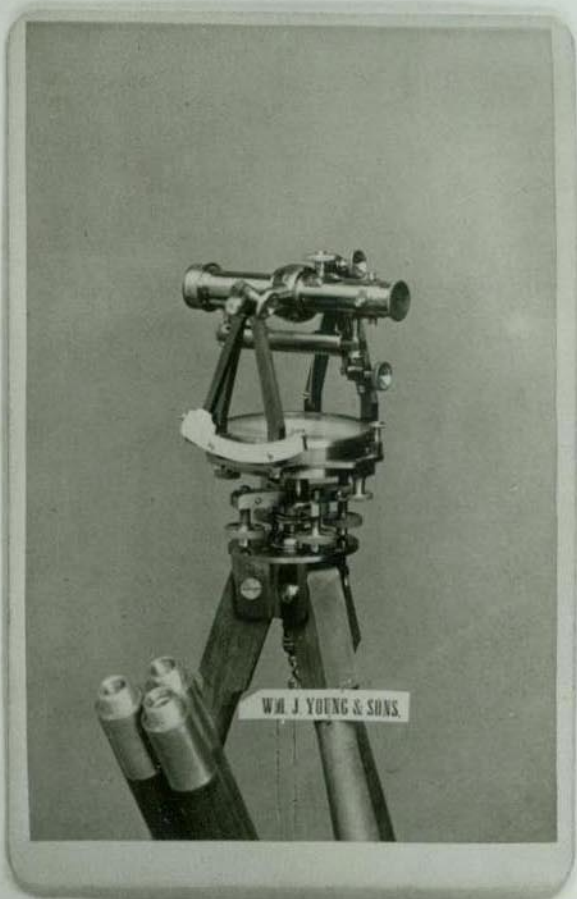
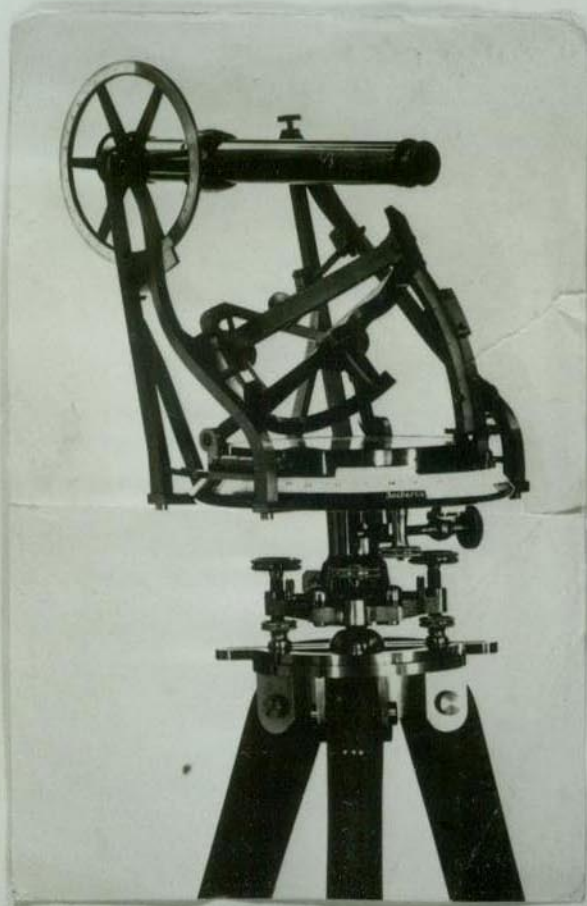
No. 12
Coast Survey Pattern

- Long centre
- Spring tangent to lower plate.
- Graduations on solid silver, to ten minutes, either two or four opposite verniers, reading ten seconds.
- Reading glasses to verniers.
- Telescope reverses in "Y" bearings.
- Clamp & spring tangent to axle of telescope.
- Striding level ground extra sensitive.
- Bal. weight on end of Tel.

These Inets. are furnished with
Young's Improved Eye piece.
" " Slide Protector.

Surveying Instruments
W. J. YOUNG & SONS,
No. 43, N. 7th St. Philada. Penna.

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Single ...

photo # 30

photo # 1

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no. 6

no. 7

photo # 22

photo # 25

Single Centre Transit
 as made for Lt Whaler
 U.S. Explorations -

Needle 3 inches inside
 vernier rack & pinion - to
 plates angle centre - 1/4 inch
 heli scope
 Lens to screw together if
 desired 17/0
 Weight including tripod 6 1/2 lbs.

Surveying Instruments

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5063 P 236
 49513 P 237
 49523

S. P. Seibert, W. HENDEL
 COLLECTION

Surveying Instruments

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1

Surveying Instruments

No. 6.

Long centre,
 Two outside verniers, double, reading minutes or decim-
 als, or one minute and one decimal.
 Graduations, 6 1/4 or 6 3/4 inches,
 Needle, 4 1/2 or 5 inches,
 Tangent to plates,
 Vertical adjustment to telescope,
 Shifting Tripod,
 Improved attachment to tripod,
 Screws packed in box, \$300 00
 With level to telescope, and with clamp and
 opposing screws to axis, 225 00
 With level clamp, &c., and arc for vertical angles, 240 00
 Graduated to read half minutes, extra, 10 00

These instruments are furnished with

Young's Improved Eye Piece,
 " " Slide Protector,
 " " Tangent.

Vernier reading either minutes or decimals.

W. J. YOUNG & SONS,
 ENGINEERING

Instrument Manufacturers,

No. 43 North 7th St., Philada.

ENGINEERS' STATIONERY, TAPES, CHAINS, DRAFTING
 INSTRUMENTS, &C.

25

Surveying Instruments

W. HENDEL
 FOR CITY ENGINEERING, BRIDGE TUNNEL, &C.
 COLLECTION

Long centre.
 Two outside verniers, reading minutes or decimals.
 Graduations on silver, 6 1/4 or 6 3/4 inches.
 Needle, 4 1/2 or 5 inches.
 Vertical adjustment to telescope.
 Tangent to plates.
 Telescope, large and powerful, either inverting or erect.
 Shifting tripod.
 Improved attachment to tripod.
 Screws pack in box, \$225 00
 With level to tel-scope, same as used on level
 instrument, with clamp and opposing screws
 to axis, 250 00
 With level, clamp, &c., and arc for vertical angles, 265 00
 GRADUATED TO READ 20 SECONDS OR 30 SECONDS,
 EXTRA, 10 00

These instruments are furnished with

Young's Improved Eye Piece,
 " " Slide Protector,
 " " Tangent.

W. J. YOUNG & SONS,
 ENGINEERING

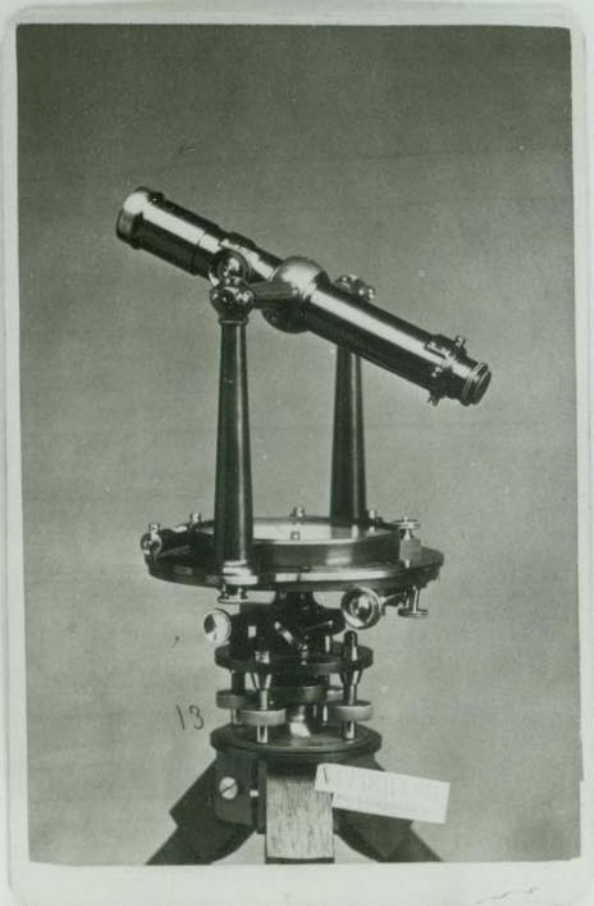
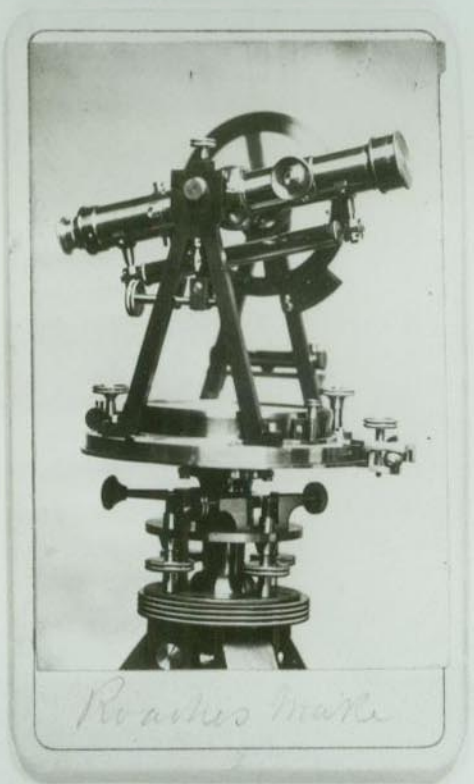
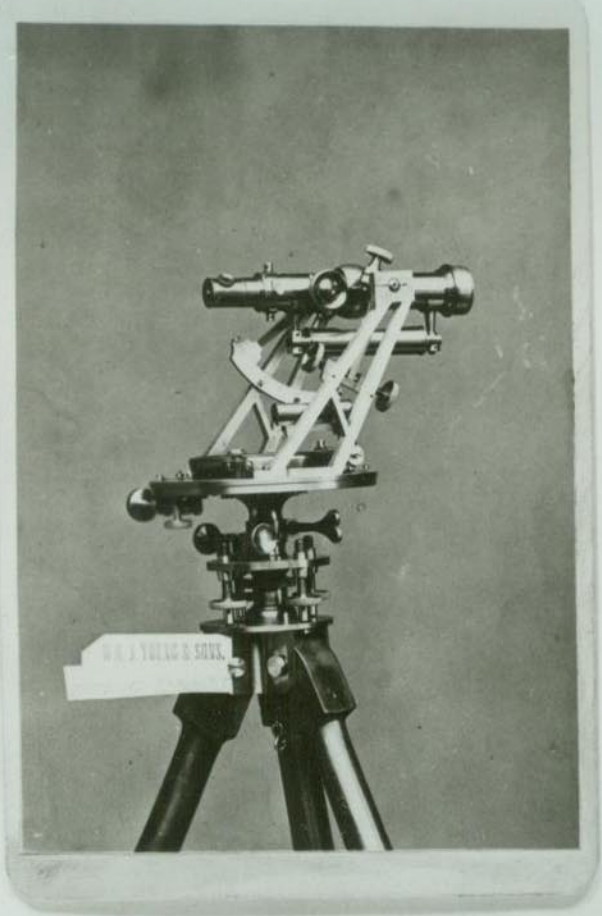
Instrument Manufacturers,

No. 43 North 7th St., Philada.

ENGINEERS' STATIONERY, TAPES, CHAINS, DRAFTING
 INSTRUMENTS, ANEROID BAROMETERS, &C.

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Surveying Instruments (Hendel Collection)
Roaches Make
photo # 19

Surveying Instruments

(Hendel Collection)

photo # 26 "NO. 10

Ten lb. transit
this instrument is designed
especially for American Engineering.
In strength, perfection & accuracy is
as reliable as larger & heavier
instruments. weight without
tripod, 5 lbs.

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Surveying Instruments (from the Hendel collection)
Source: neg. # 9216

NO. 13

photo # 18

photo # 28

Surveying Instruments

C. W. HENDEL
COLLECTION

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LIBRARY

TEN LB. TRANSIT.
This instrument is designed especially for American
Engineering. In strength, perfection and accuracy
is as reliable as larger and heavier instruments.

WEIGHT WITHOUT TRIPOD, 5 lbs.
WEIGHT OF TRIPOD, 4½ to 6½ lbs.

- Long centres.
- Two outside verniers, reading minutes or decimals.
- Graduations, 4¾ inches.
- Tangent to plates.
- Vertical adjustment to Telescope.
- Inverting eye-piece.
- Shifting tripod.
- Screws pack in box.
- With level to telescope, and clamp and opposing,
or tangent screws to axle.
- With level, clamp, &c., and arc for vertical angles.
- GRADUATED TO READ 30 SECONDS OR 20 SECONDS, extra, 10 00
- BOTH RECT AND INVERTING EYE-PIECE, " 10 00
- WITH YOUNG'S MICROMETER GRADIENTER, FOR
MEASUREMENT OF DISTANCES, GRADES AND
DIFFERENCES OF LEVEL (including level to
telescope), " 40 00

W. J. YOUNG & SONS,
ENGINEERING

Instrument Manufacturers,

No. 43 North 7th St., Philada.

ENGINEERS' STATIONERY, TAPES, CHAINS, DRAFTING
INSTRUMENTS, &C.

26 inch enclosed upright as in photograph
taken 12/15

Surveying Instruments

C. W. HENDEL
COLLECTION

18

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JOHN KOACH,
OPTICIAN,
429 MONTGOMERY ST.,
E. O. Box 1056, S. F., Cal.

Surveying C. W. HENDEL Instruments
COLLECTION No. 13.

CITY AND TUNNEL INSTRUMENT.

Adapted especially for straight lines.

- Telescope balanced, revolving in Y bearings; can be
reversed in bearings
- Hollow pillar supports
- Long centre.
- Two outside verniers, double reading minutes or deci-
mals, or one minutes and one decimals.
- Graduations, 6¼ or 6¾ inches
- Needle, 4½ or 5 inches.
- Tangent to plates.
- Vertical adjustment to telescope.
- Shifting Tripod.
- Improved attachment to tripod.
- Screws packed in box.
- Graduated to single minutes, \$250 00
- " " " on silver, 250 00
- " " " to twenty or thirty seconds, extra, 10 00

These instruments are furnished with
Young's Improved Eye Piece,
Slide Protector,
Tangent.

W. J. YOUNG & SONS,
ENGINEERING

Instrument Manufacturers,

No. 43 North 7th St., Philada.

ENGINEERS' STATIONERY, TAPES, CHAINS, DRAFTING
INSTRUMENTS, ANEROID BAROMETERS, &C.

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28