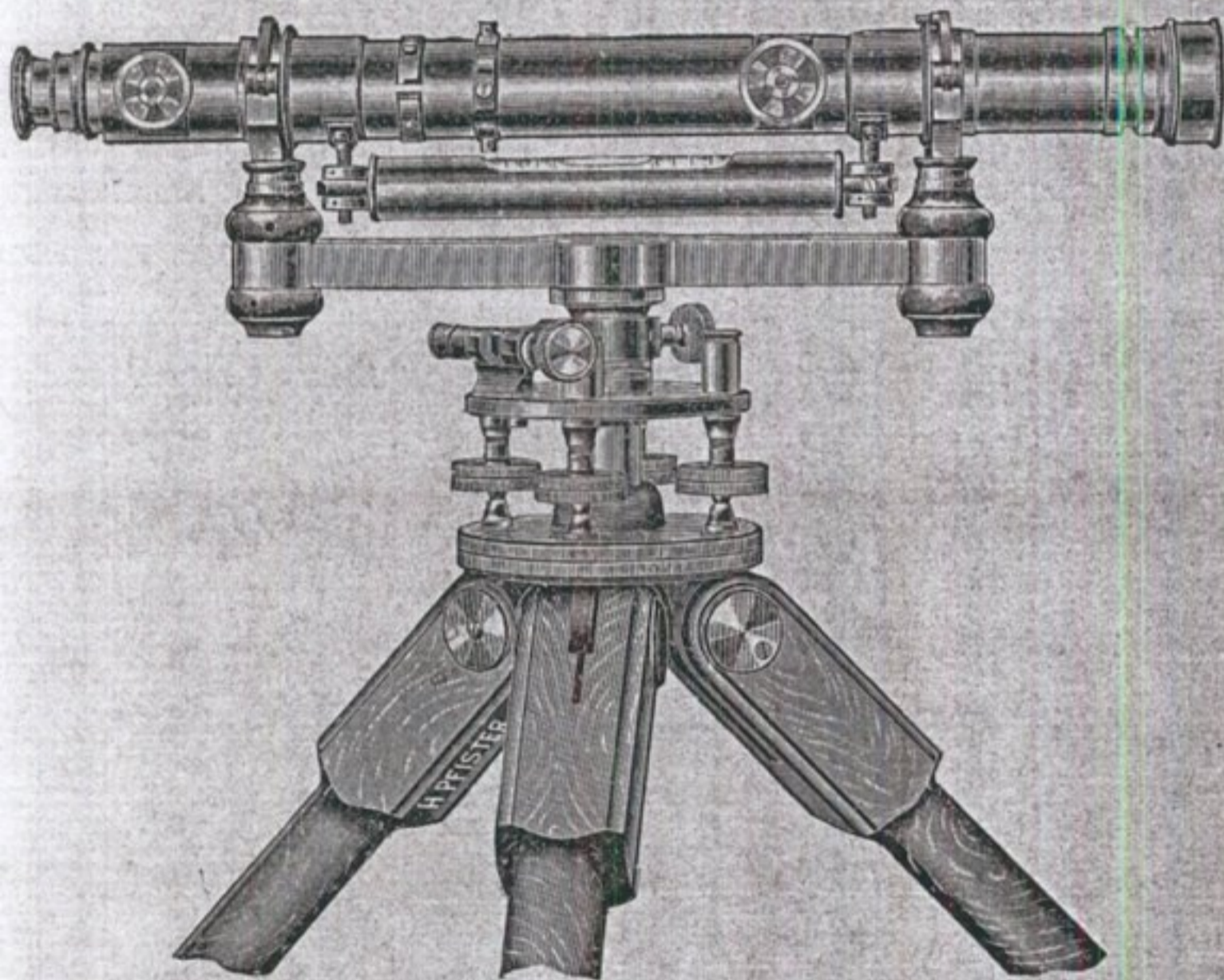


ILLUSTRATED
CATALOGUE AND PRICE-LIST
OF
Surveying and Engineering Instruments,



MANUFACTURED BY

HERM. PFISTER,

No. 428 Plum Street,

CINCINNATI, O.

ILLUSTRATED
CATALOGUE AND PRICE-LIST

OF

Surveying and Engineering

INSTRUMENTS,

MANUFACTURED BY

HERM. PFISTER,

No. 428 Plum Street,

CINCINNATI, O.



PRESS OF
FRANK H. VEHR, 127 LONGWORTH ST.
CINCINNATI, OHIO.

TO OUR CUSTOMERS.

In issuing this Catalogue we take occasion to thank our friends and customers for the long continued patronage with which they have favored us. It shall be our aim in the future, as it has been in the past, to furnish such work in our line as will enable us to sustain the reputation all Instruments bearing our name have so long enjoyed.

Well aware of the fact that Engineering Instruments CAN NOT be made TOO GOOD, we give our personal attention and supervision to all the details in their manufacture, and no Instrument is ever allowed to leave our shop without our personal and careful examination and adjustment, and thus we have the satisfaction of knowing that everyone of our Instruments is a recommendation of its own.

Respectfully yours,

HERM. PFISTER.

CATALOGUE AND PRICE LIST.

Compasses.

No. 1.—Surveyors' Compass, with 5 inch magnetic needle, vernier, two straight levels, jacobstaff with ball and socket mounting. Instrument is packed in hard-wood case with lock and key.

Price, \$35.00

No. 2.—Surveyors' Compass, with $5\frac{1}{2}$ inch magnetic needle, vernier, two straight levels, jacobstaff with ball and socket mounting. Instrument is packed in hard-wood case with lock and key.

Price, \$40.00

No. 3.—Surveyors' Compass, with 6 inch magnetic needle, vernier, two straight levels, jacobstaff with ball and socket mounting. Instrument is packed in hard-wood case with lock and key.

Price, 45.00

If instead of a jacobstaff a tripod is desired we can furnish a substantial light tripod with ball and socket mounting.

Price, \$7.50

The same tripod with leveling plates and screws, clamp and spring tangent motion instead of ball and socket mounting.

Price, \$12.50

Surveyors' Transit or Telescope Compass.

This Instrument is far superior to the regular Surveyors' Compass, as instead of the plain sights it is provided with a regular telescope, mounted and furnished with all the adjustments found in the telescope of the higher priced Engineers' Transits. We make two sizes of

these Instruments, one size with a needle of $4\frac{1}{2}$ inches in length, the second and larger size with a needle of 5 inches in length.

No. 4.—Surveyors' Transit or Telescope Compass, with $4\frac{1}{2}$ inch magnetic needle, vernier, telescope with level, clamp and spring tangent motion; also rack and pinion motion for focusing eye-piece and object glass. Instrument has a full leveling tripod head with leveling plates and screws, also clamp and spring tangent motion, and is packed in hard-wood case with lock and key, and provided with sunshade, reading glass, plumb-bob, adjusting pins, etc.

Price, \$85.00

No. 5.—Surveyors' Transit or Telescope Compass, with 5 inch magnetic needle, vernier, telescope with level, clamp and spring tangent motion; also rack and pinion motion for focusing eye-piece and object glass. Instrument has a full leveling tripod head with leveling plates and screws, also clamp and spring tangent motion, and is packed in hard-wood case with lock and key, and provided with sunshade, reading glass, plumb-bob, adjusting pins, etc.

Price, \$95.00

No. 6.—Surveyors' Transit or Telescope Compass, with $4\frac{1}{2}$ inch magnetic needle, vernier, telescope with level, clamp and spring tangent motion; also rack and pinion motion for focusing eye-piece and object glass; full vertical circle $4\frac{1}{4}$ inches diameter, divided to half degrees, with vernier reading to minutes. Instrument has a full leveling tripod head with leveling plates and screws, also clamp and spring tangent motion, and is packed in hard-wood case with lock and key, and provided with sunshade, reading glass, plumb-bob, adjusting pins, etc.

Price, \$100.00

No. 7.—Surveyors' Transit or Telescope Compass, with 5 inch magnetic needle, vernier, telescope with level, clamp and spring tangent motion; also rack and pinion motion for focusing eye-piece and object glass; full vertical circle $4\frac{1}{4}$ inches diameter, divided to half degrees with vernier reading to minutes. Instrument has a full leveling tripod head with leveling plates and screws, also clamp and spring tangent motion, and is packed in hard-wood case with lock and key, and provided with sunshade, reading glass, plumb-bob, adjusting pins, etc.

Price, \$110.00

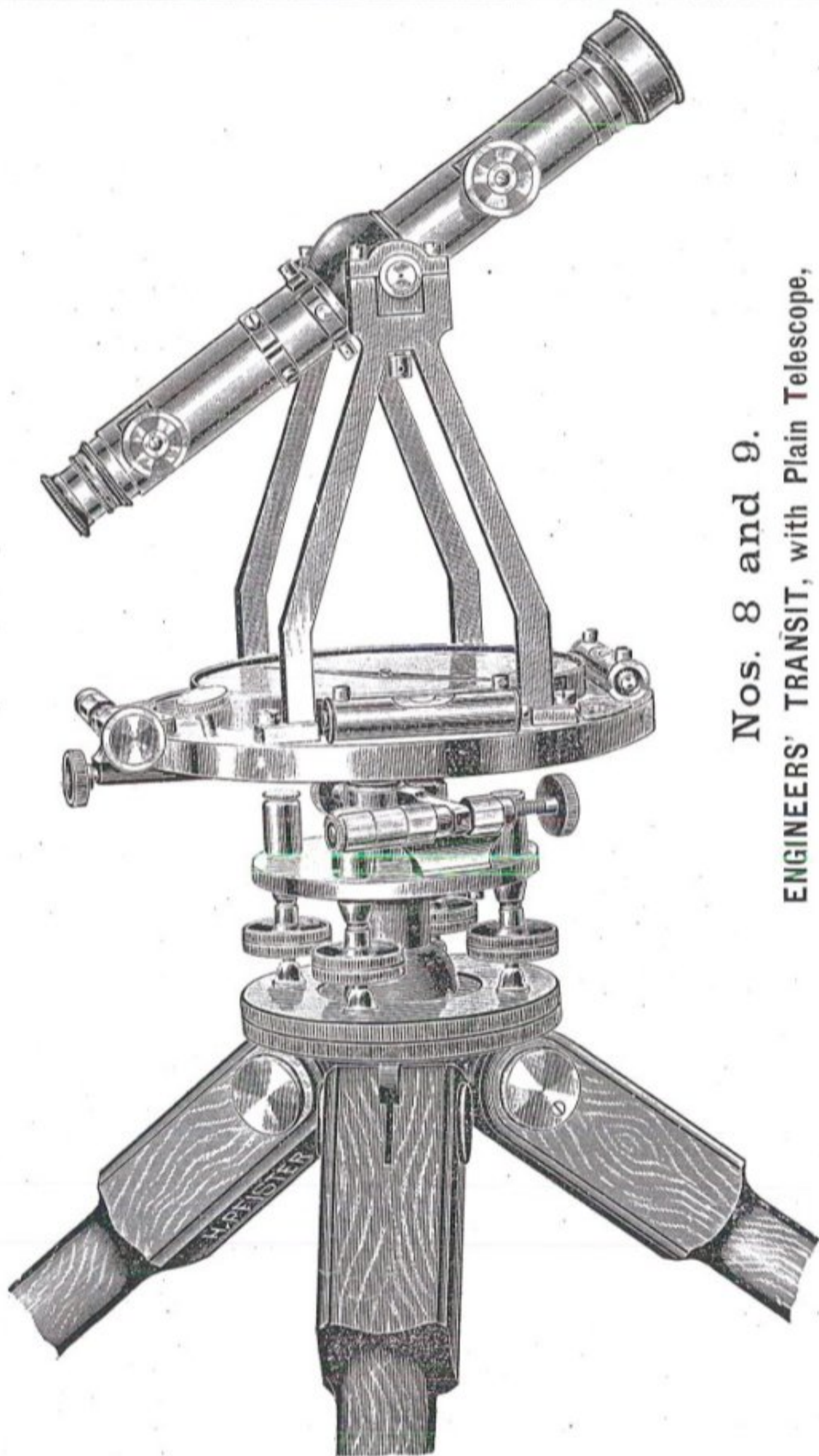
Engineers' Transits.

In introducing our Engineers' Transits we wish to call the attention of our customers to the fact that all our Transits are constructed on the most approved and modern plan, and are finished in the best of style. Strength and durability, without unnecessary weight, are combined, and the result is a well proportioned instrument. In order to give great steadiness to our instrument we use a broad tripod head and long compound spindles. The telescopes of all our instruments are provided with the best of lenses, giving a sharp and clear field.

The circles of our Transits are usually divided to half degrees and the verniers read to single minutes, and are placed in the most convenient position to the line of sight of the Telescope. The upper and lower clamp, as well as the clamp to the telescope axis, are provided with a spring tangent motion, giving an easy and steady movement to the instrument and avoiding all lost motion or undue pressure so common where two opposing tangent screws are used. All of our Transits are provided with a shifting tripod head, which enables the Engineer to set the instrument accurately over desired point with perfect ease. Should a purchaser of an instrument prefer two opposing tangent screws for the clamp of the lower plate instead of the spring motion with one tangent screw, the change can readily be made without additional cost. The leveling plates and screws are not detachable from the instrument proper; the leveling screws are protected with dust caps, and the ends resting on the plate are provided with ball cups. Each instrument is packed in hard-wood case, provided with lock and key, and is furnished with plumb-bob, reading glass, adjusting pins, sunshade, etc.

Engineers' Transit, with Plain Telescope.

No. 8.—Engineers' Transit, with division circle of $6\frac{1}{2}$ inch diameter, divided to half degrees with two verniers reading to minutes, placed in the most convenient position to the line of sight of the telescope; with $4\frac{1}{2}$ inch magnetic needle, long compound



Nos. 8 and 9.
ENGINEERS' TRANSIT, with Plain Telescope,
AS MANUFACTURED BY HERM. PFISTER.

spindles, spring tangent motion to upper and lower plate clamp; telescope provided with rack and pinion motion for focusing eye-piece and object glass; both ends of the telescope swing over the compass box when extended to their fullest length. The leveling screws are protected with dust caps and the ends resting on the plate are provided with ball cups. The Instrument has a shifting tripod head, and is packed in hard-wood case with lock and key, and provided with sunshade, reading glass, plumb-bob, adjusting pins, etc.

Price, \$140.00

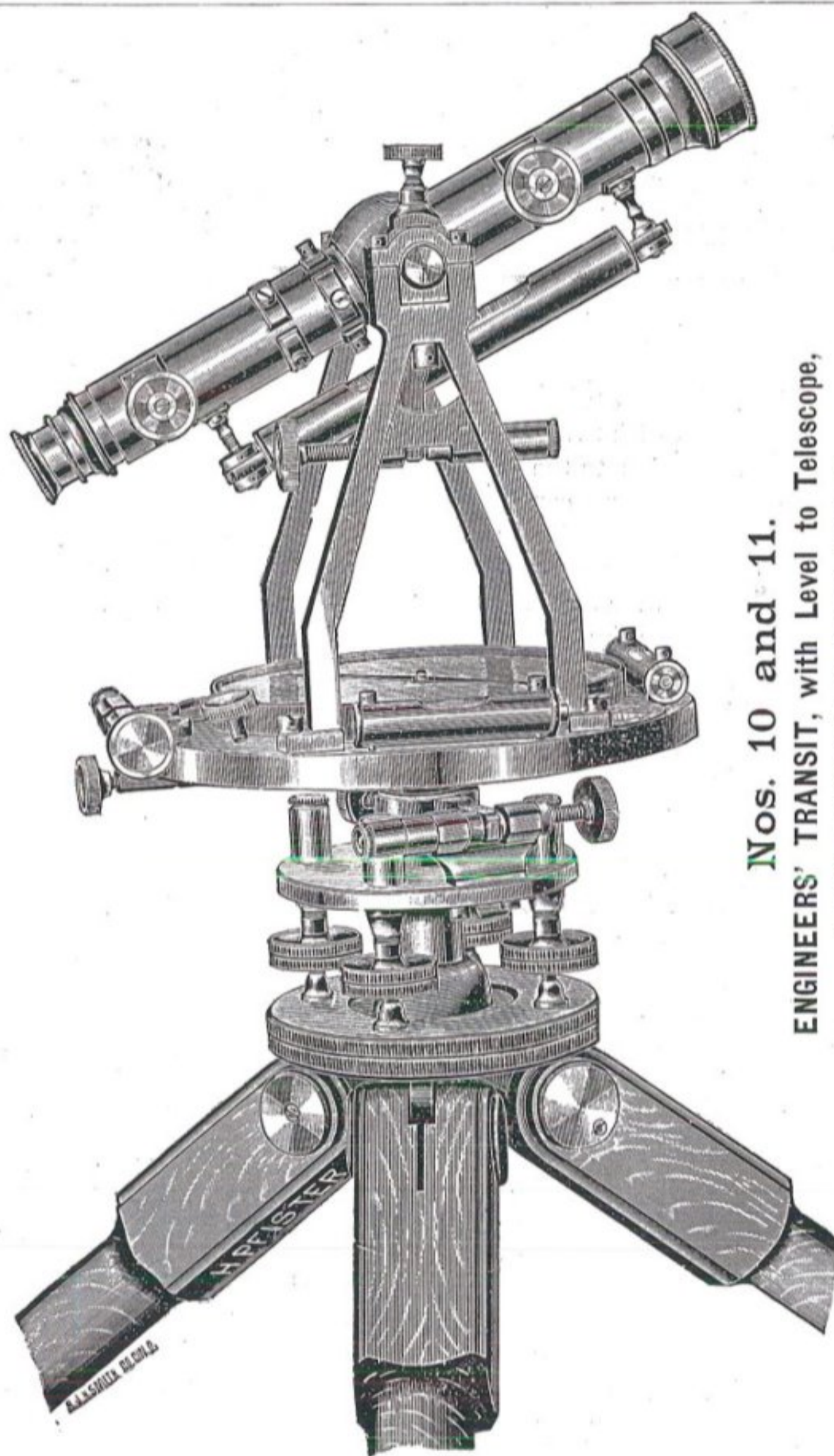
No. 9.—Engineers' Transit, with 7 inch division circle, divided to half degrees; with two verniers reading to minutes, placed in the most convenient position to the line of sight of the telescope; with 5 inch magnetic needle, long compound spindles, spring tangent motion to upper and lower plate clamp; telescope provided with rack and pinion motion for focusing eye-piece and object glass; both ends of the telescope swing over the compass box when extended to their fullest length. The leveling screws are protected with dust caps, and the ends resting on the plate are provided with ball cups. The instrument has a shifting tripod head, and is packed in hard-wood case with lock and key, and provided with plumb-bob, sunshade, reading glass, adjusting pins, etc.

Price, \$150.00

Engineers' Transit, with Level to Telescope.

No. 10.—Engineers' Transit, with $6\frac{1}{2}$ inch division circle, divided to half degrees, with two verniers reading to minutes, placed in the most convenient position to the line of sight of the telescope; with $4\frac{1}{2}$ inch magnetic needle, long compound spindles, spring tangent motion to upper and lower plate clamp; telescope provided with rack and pinion motion for focusing eye-piece and object glass. Telescope with level attached, clamp and spring tangent motion to telescope axis; both ends of the telescope swing over compass box when extended to their fullest length. The leveling screws are protected with dust caps, and the ends resting on the plate are provided with ball cups. The instrument has a shifting tripod head, and is packed in hard-wood case with lock and key, and provided with plumb-bob, sunshade, reading glass, adjusting pins, etc.

Price, \$155.00



Nos. 10 and 11.
ENGINEERS' TRANSIT, with Level to Telescope,
AS MANUFACTURED BY HERM. PFISTER.

No. 11.—Engineers' Transit, with 7 inch division circle, divided to half degrees, with two verniers reading to minutes, placed in the most convenient position to the line of sight of the telescope, with 5 inch magnetic needle, long compound spindles, spring tangent motion to upper and lower plate clamp; telescope provided with rack and pinion motion for focusing eye-piece and object glass. Telescope with level attached, clamp and spring tangent motion to telescope axis; both ends of the telescope swing over the compass box when extended to their fullest length. The leveling screws are protected with dust caps, and the ends resting on the plate are provided with ball cups. The instrument has a shifting tripod head, and is packed in hard-wood case with lock and key, and provided with plumb-bob, sunshade, reading glass, adjusting pins, etc.

Price, \$165.00

Engineers' Theodolite.

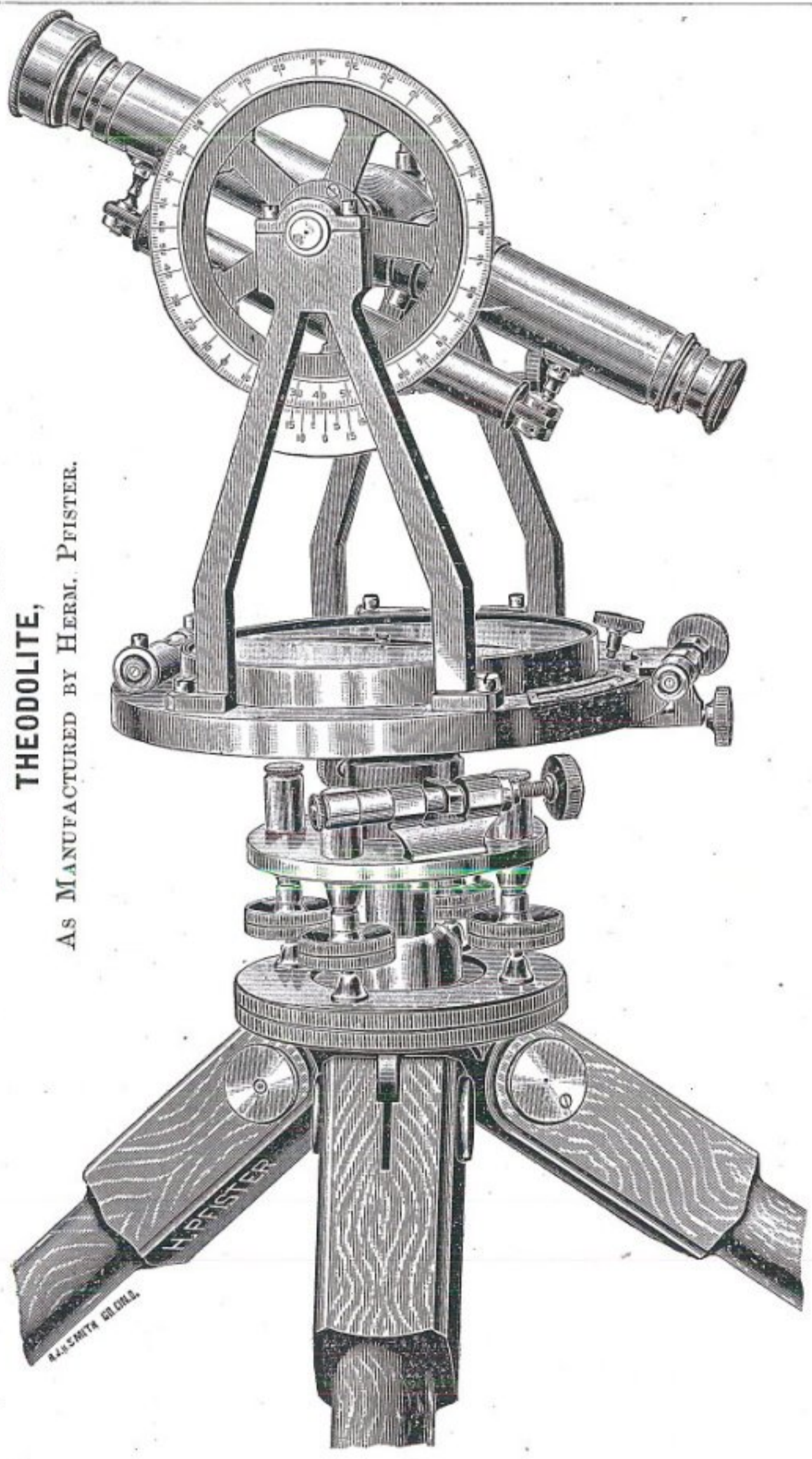
No. 12.—Theodolite, with $6\frac{1}{2}$ inch division circle, divided into half degrees, with two verniers reading to minutes, placed in the most convenient position to the line of sight of the telescope, with $4\frac{1}{2}$ inch magnetic needle, long compound spindles, spring tangent motion to upper and lower plate clamp; telescope provided with rack and pinion motion for focusing eye-piece and object glass. Telescope with level attached, clamp and spring tangent motion to telescope axis; full vertical circle, $4\frac{1}{2}$ inch diameter, divided to half degrees with vernier reading to minutes, for measuring vertical angles. Telescope swings over compass box when both ends are extended to their fullest length. The leveling screws are protected with dust caps and the ends resting on the plate are provided with ball cups. The Instrument has a shifting tripod head, and is packed in hard-wood case with lock and key, and provided with plumb-bob, sunshade, reading glass, adjusting pins, etc.

Price, \$170.00

No. 13.—Theodolite, with 7 inch division circle, divided to half degrees, with two verniers reading to minutes, placed in the most convenient position to the line of sight of the telescope, with 5 inch magnetic

**Nos. 12 and 13.
THEODOLITE,**

AS MANUFACTURED BY HERM. PFISTER.



needle, long compound spindles, spring tangent motion to upper and lower plate clamp; telescope provided with rack and pinion motion for focusing eye-piece and object glass. Telescope with level attached, clamp and spring tangent motion to telescope axis; full vertical circle, $4\frac{1}{2}$ diameter, with vernier reading to minutes for measuring vertical angles. Telescope swings over compass box when both ends are extended to their fullest length. The leveling screws are protected with dust caps, and the ends resting on the plate are provided with ball cups. The Instrument has a shifting tripod head, and is packed in hard-wood case with lock and key, and provided with plumb-bob, sunshade, reading glass, adjusting pins, etc.

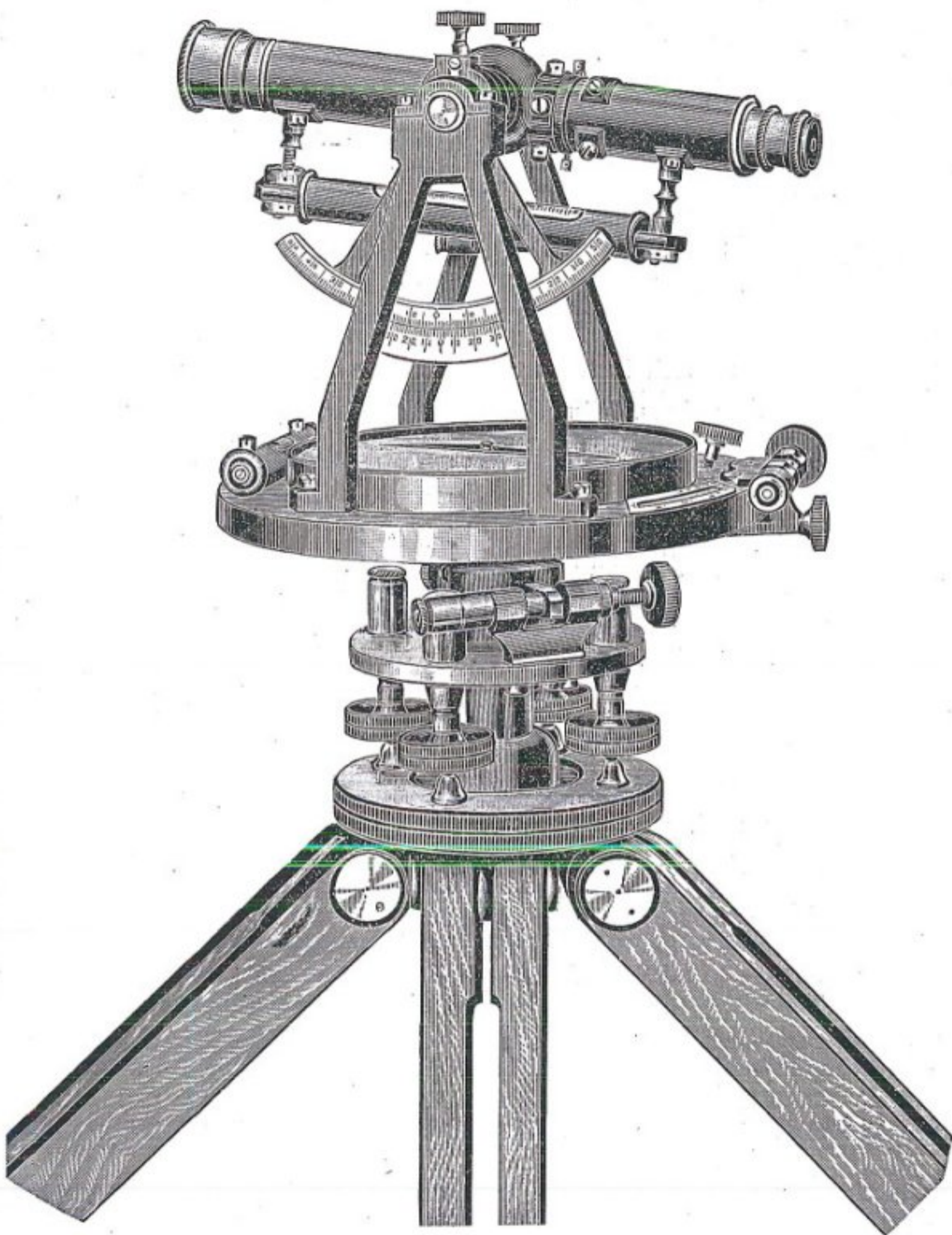
Price, \$180.00

Engineers' Mountain Transit.

No. 14.—Mountain Transit, with $6\frac{1}{2}$ inch division circle, divided to half degrees, with two verniers reading to minutes, placed in the most convenient position to the line of sight of the telescope, $4\frac{1}{2}$ inch magnetic needle, long compound spindles, spring tangent motion to upper and lower plate clamp; telescope about 8 inches in length, and arranged with rack and pinion motion for focusing eye-piece and object glass. Telescope with level attached, clamp and spring tangent, motion to telescope axis, also a vertical arc of 5 inches diameter; 60 degrees in each direction from zero point, divided to half degrees with vernier reading to minutes. The leveling screws are protected with dust caps, and the ends resting on the plate are provided with ball cups. The Instrument has a shifting tripod head and is packed in hard-wood case with lock and key, and provided with plumb-bob, sunshade, reading glass, adjusting pins, etc. The tripod has extension legs, which can be easily and securely adjusted to any desired length.

Price, \$155.00

The telescopes of all our Mountain Transits are provided with adjustable stadia hairs, adjusted to read 1 foot on the rod to 100 feet distance.



No. 14.

**ENGINEERS' MOUNTAIN TRANSIT,
AS MANUFACTURED BY HERM. PFISTER**

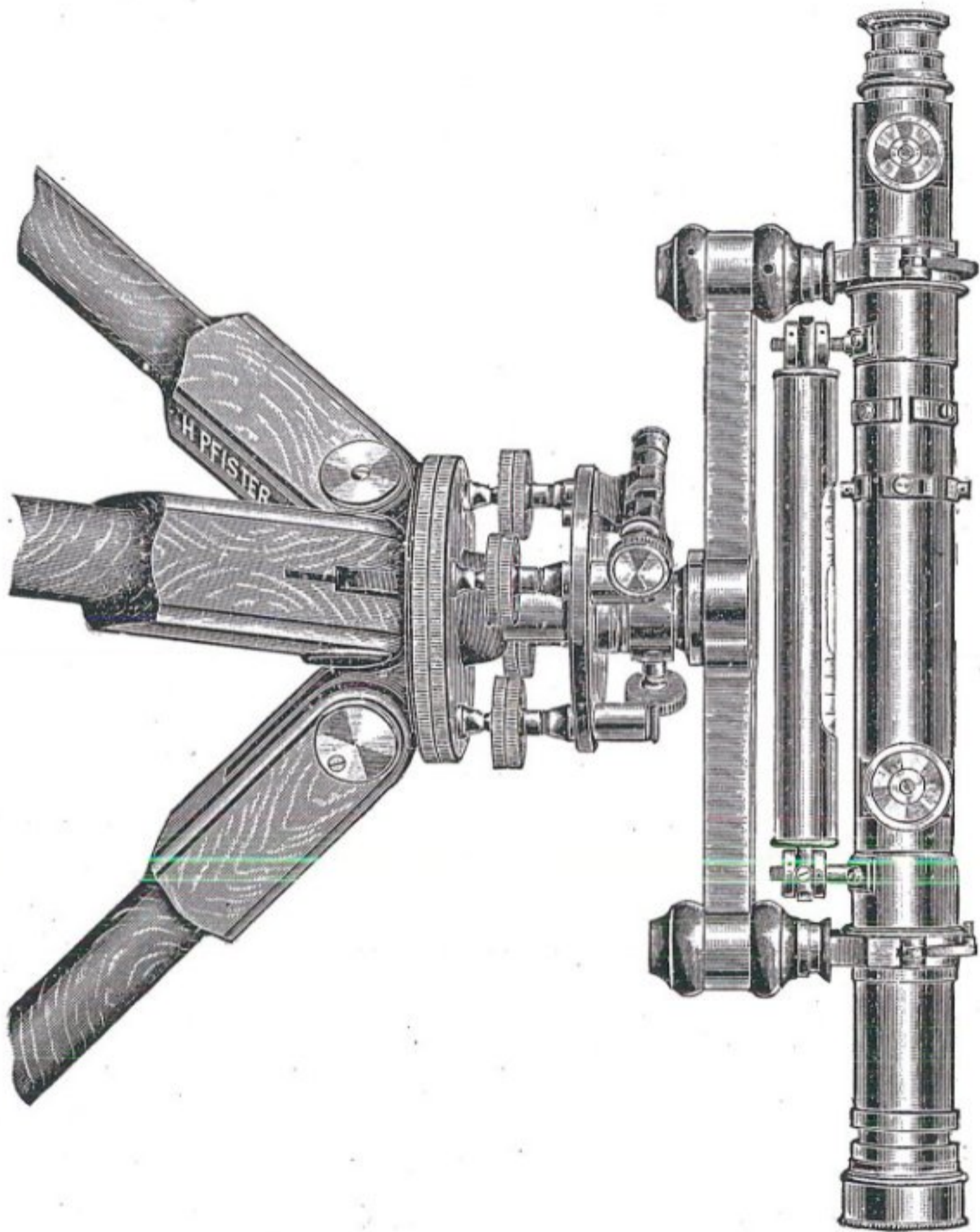
We also make the Theodolites, as described under Nos. 12 and 13, with a vertical arc of 60 degrees in each direction from zero point instead of a full vertical circle, the vernier being fastened to a movable arm, which can be readily set by means of a tangent screw, very convenient in bringing zero points of the arc and vernier to coincide.

The prices for Theodolites with vertical arc and vernier, instead of full vertical circle and vernier, are the same as the prices for Theodolites Nos. 12 and 13 respectively.

Unless otherwise ordered all our Transits are made without a variation plate, if, however, a variation plate is desired an additional cost of \$5.00 is to be added to the price of the Instrument.

Prices for Attachments.

Cost of putting variation plate on old Transit,	\$10 00
Cost of putting vertical circle or vertical arc with vernier to telescope axis of old Transit,	20 00
Cost of attaching level, clamp, and spring tangent motion to telescope of old Transit,	16 00
Cost of adjustable stadia wires to telescope of old Transit,	5 00
Cost of putting rack and pinion motion to eye-piece of old Transit,	5 00
Cost of changing stationary tripod head of old Transit to a shifting tripod head, according to the construction of the tripod head of the old Transit,	from \$5 00 to 10 00
Cost of extension tripod,	15 00
Cost of changing old style tangent screw on old Transit to spring tangent motion,	\$3 50 to 5 00



No. 15.

ENGINEERS' Y LEVEL,

AS MANUFACTURED BY HERM PFISTER.

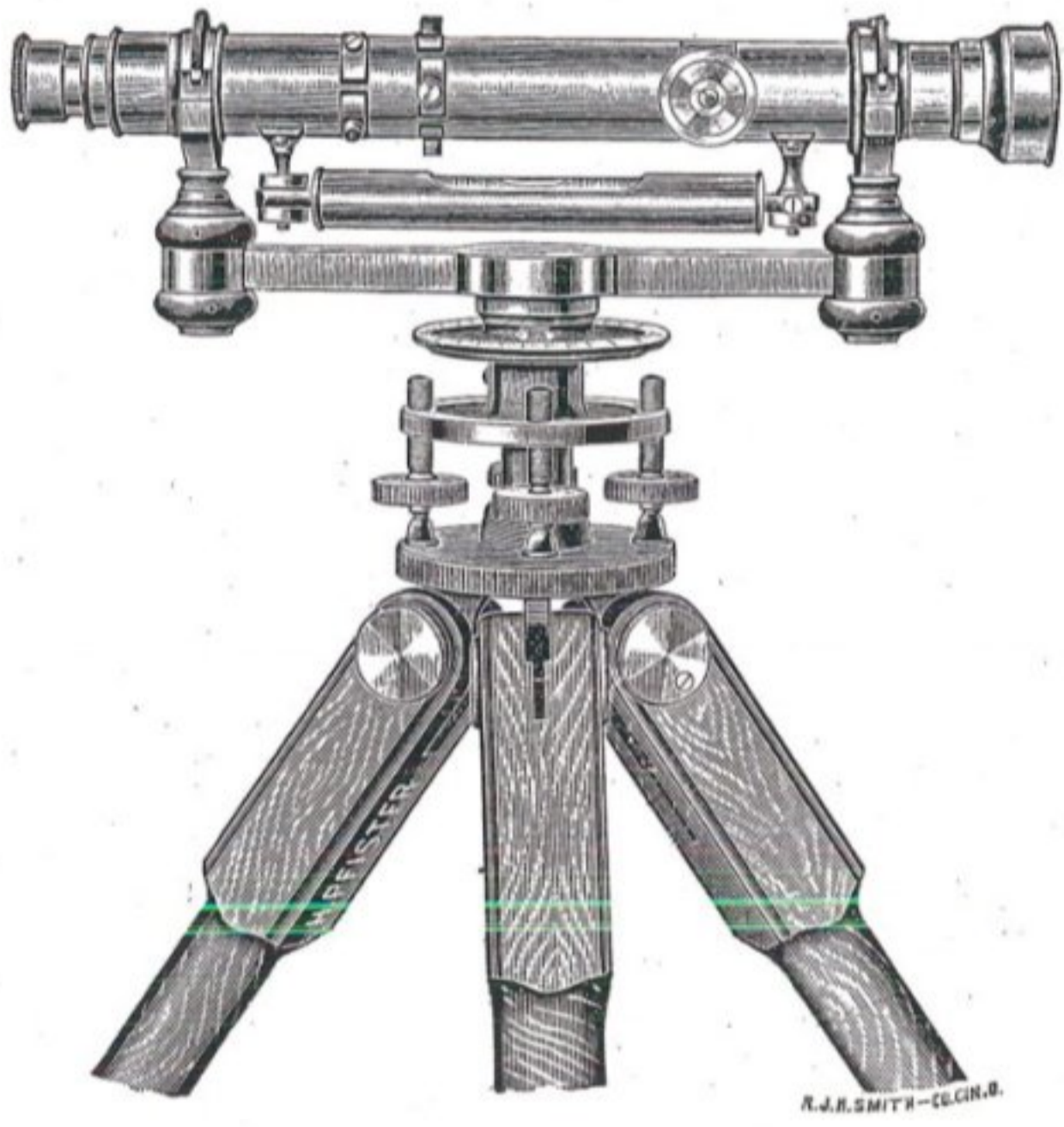
Engineers' Y Levels.

No. 15.—Engineers' Y Level.—The telescope of our Y level is usually about 18 inches in length, and is provided with rack and pinion motion for adjusting the focus of the eye-piece and object glass; it is mounted in two strong Ys, in which it can be revolved with perfect freedom. The level bar is mounted on a long spindle which gives steadiness to the instrument. One of the Ys is fixed stationary in the bar, the other is made adjustable. The collars resting in the Ys are made of hard bronze metal and are of sufficient length to furnish a good support for the posts holding the ends of the bubble tube: one of the posts holds the end of bubble tube stationary, the other post has the usual arrangement for vertical adjustment of the bubble tube. The clips of the Ys are adjusted so as to hold the telescope securely in its proper position without undue pressure, and one of the clips has a pin fitting into a notch in the rim of the collar of the telescope, which brings the cross hairs into a true horizontal and vertical position when the instrument is properly adjusted and leveled up. The spindle of the instrument has a clamp and spring tangent motion. The leveling screws are protected with dust caps and the ends resting on the plate are provided with ball cups. The bubble tubes are accurately ground and nicely graduated and are sensitive to insure accurate work. The object slide of the telescope is protected from dust by a collar fitting closely over the main tube of the telescope. The instrument is packed in hard-wood case with lock and key, and is provided with sunshade, adjusting pins, etc.

Price, \$110.00

Architects' and Builders' Levels.

No. 16.—Architects' and Builders' Levels.—This Instrument is especially designed for the use of Architects, Builders, and Contractors. It is constructed on the same general plan as the Engineers' Y Level. The telescope is about 11 inches in length, provided with the best of lenses, and is mounted in two Ys, in which it can be revolved



No. 16.

ARCHITECTS' AND BUILDERS' LEVEL,

AS MANUFACTURED BY HERM. PFISTER.

with perfect freedom. One of the Ys is made stationary in the bar, the other adjustable. The Instrument is also provided with a graduated circle and vernier for laying off horizontal angles. The level bar is mounted on a long spindle, giving steadiness to the instrument and the bubble tube is nicely ground and graduated. In addition to the regular full size tripod, the instrument has a small platform tripod, which allows the Instrument to be used in a very small space, where the regular tripod could not be set up at all. The Instrument is packed in hard-wood case with lock and key, and provided with sunshade, adjusting pins, etc. Price, \$45.00

The leveling plates of the Engineers' Y Levels, as well as those of the Architects' Levels, are not detachable from the instrument proper. Should a purchaser of an Engineers' Y Level or of an Architects' Level prefer an extension tripod instead of the regular solid tripod, an additional amount of \$5.00 is to be added to prices given above.

Architects' and Builders' Transit.

No. 17.—Architects' and Builders' Transit.—This Instrument is intended for use in the construction of large buildings, where it is necessary to furnish levels not only, but to locate points in a vertical plane, either above or below the level line, or on either side and in line with the centre of the instrument. This Instrument is of the same general construction as the Transit described under No. 10.

It has a division circle $6\frac{1}{2}$ inch diameter divided to half degrees, with one vernier reading to minutes, placed in the most convenient position to the line of sight of the telescope; it has long compound spindles, with spring tangent motion to upper and lower clamp. The telescope has a level, clamp and spring tangent motion attached and is provided with rack and pinion motion for focusing eye-piece and object glass. The leveling screws are protected with dust caps and the ends resting on the plate are provided with ball cups. The instrument has a shifting tripod head, and is packed in hard-wood case with lock and key, and provided with sunshade, reading glass, adjusting pins, etc.

Price, \$125.00

Leveling Rods.

No. 18.—New York Leveling Rod, with target, $6\frac{1}{2}$ feet long, sliding out to 12 feet, divided to 10ths and 100ths, vernier reading to 1000ths. Price, \$13.00

No. 19.—Philadelphia Self-reading and Target Rod, 7 feet long, sliding out to 12 feet, divided to 10ths and half 10ths, vernier reading to 100ths. Price, \$14.00

No. 20.—Philadelphia Self-reading and Target Rod, $6\frac{1}{2}$ feet long, sliding out to 12 feet, divided to 10ths and half 10ths, vernier reading to 200ths. Price, \$13.00

No. 21.—Philadelphia Self-reading and Target Rod, 7 feet long, sliding out to 12 feet, divided to 10ths and 100ths, vernier reading to 1000ths. Price, \$14.00

No. 22.—Philadelphia Self-reading and Target Rod, $6\frac{1}{2}$ feet long, sliding out to 12 feet, divided to 10ths and 100ths, vernier reading to 1000ths. Price, \$13.00

No. 23.—Philadelphia Self-reading and Target Rod, 7 feet long, sliding out to 13 feet, divided to 10ths and half 10ths, vernier reading to 200ths. Price, \$14.00

No. 24.—Philadelphia Self-reading and Target Rod, 7 feet long, sliding out to 13 feet, divided to 10ths and 100ths, vernier reading to 200ths. Price, \$14.00

No. 25.—Architects' Rod, 5 feet long sliding out to 10 feet, divided to 10ths and 100ths, vernier reading to 1000ths. Price, \$6.00

No. 26.—Architects' Rod, 5 feet long, sliding out to 10 feet, divided to feet and inches, vernier reading to 64ths. Price, \$6.00

Self-reading Rods, in one piece, made to order, shape and length, as well as divisions according to order. Prices range, per foot, from 75 cents to \$1.00.

Ranging Poles or Flag Rods, 10 feet to 12 feet long, with long strap sockets and steel points painted red and white.

Price each, \$2.25

Ranging Poles or Flag Rods, 6 feet long, $\frac{1}{2}$ inch hexagon steel, painted red and white.

Price each, \$2.25

Plumb-bobs.

All of our plumb-bobs have well tempered steel points, and are so shaped that the point can be readily seen without stooping when plumb-bob is in use.

5 oz.	Plumb-bob,	tempered	steel	point,	.....	\$1 25
8 "	"	"	"	"	.....	1 50
10 "	"	"	"	"	.....	1 75
15 "	"	"	"	"	.....	2 00
20 "	"	"	"	"	.....	2 25
2 lbs.	"	"	"	"	.....	3 25
4 "	"	"	"	"	.....	4 50

Brass Parallel Rulers.

Parallel Rulers of our make, are made of hard metal, and are of sufficient strength and weight to retain accuracy. The rollers are of such size as to give an easy movement to the ruler.

14 inches long,	$2\frac{1}{4}$ inches	wide,	.....	\$ 8 50
16 "	$2\frac{1}{4}$ "	"	.....	9 50
18 "	$2\frac{1}{4}$ "	"	.....	12 50
24 "	$2\frac{3}{4}$ "	"	.....	15 50

Marking Pins.

Small size, 9 inches long, steel, 11 in set,	\$ 65
Medium size, 11 inches long, steel, 11 in set,	75
Large size, 15 inches long, steel, 11 in set,	1 00
Extra heavy, 12 inches long, steel, 11 in set,	1 50

Steel Chains.

33 feet long, oval rings, brass handles,	\$3 50
50 " " " "	4 50
66 " " " "	6 00
100 " " " "	6 50
33 feet long, oval rings, brazed links and rings,	4 50
50 " " " " " "	5 50
66 " " " " " "	9 00
100 " " " " " "	9 50

Chesterman's Steel Tapes. $\frac{3}{8}$ INCH WIDE.

25 feet long, 10ths or 12ths,	\$2 50
33 " " 10ths " 12ths,	3 50
50 " " 10ths " 12ths,	6 25
66 " " 10ths " 12ths,	7 75
100 " " 10ths " 12ths,	11 00

Chesterman's Metallic Tapes. $\frac{5}{8}$ INCH WIDE.

33 feet long, 10ths or 12ths,	\$2 10
50 " " 10ths " 12ths,	2 25
66 " " 10ths " 12ths,	2 75
100 " " 10ths " 12ths,	4 00

Metallic Tapes, without Cases.

These Tapes can be placed in leather case when original tape is worn out.

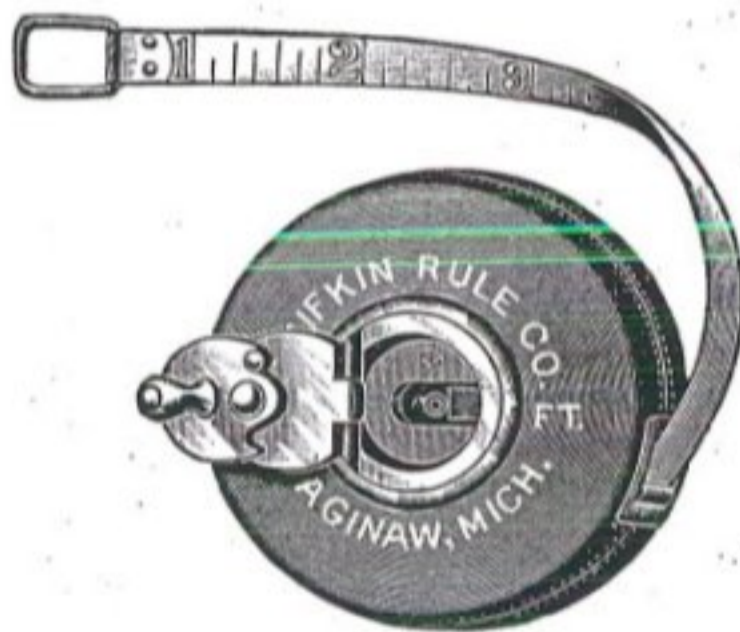
33 feet long, 10ths or 12ths,.....	\$1 10
50 " " 10ths " 12ths,.....	1 50
66 " " 10ths " 12ths,.....	1 80
100 " " 10ths " 12ths,.....	2 90

Paine's American Steel Tapes.

WITH $\frac{1}{4}$ INCH TAPES.

33 feet long, 10ths or 12ths,.....	\$3 25
50 " " 10ths " 12ths,.....	4 50
66 " " 10ths " 12ths,.....	6 00
100 " " 10ths " 12ths,.....	9 25

These tapes are detachable from the case, and are furnished with two detachable rings.



Lufkin Steel Tapes.

With double folding flush handle, opened by pressing small pin or button on opposite side. Hard leather cases and nickel plated trimmings.

WITH $\frac{3}{8}$ INCH TAPES.

50 feet long, 10ths or 12ths,.....	\$ 6 00
75 " " 10ths " 12ths,.....	8 25
100 " " 10ths " 12ths,.....	10 50

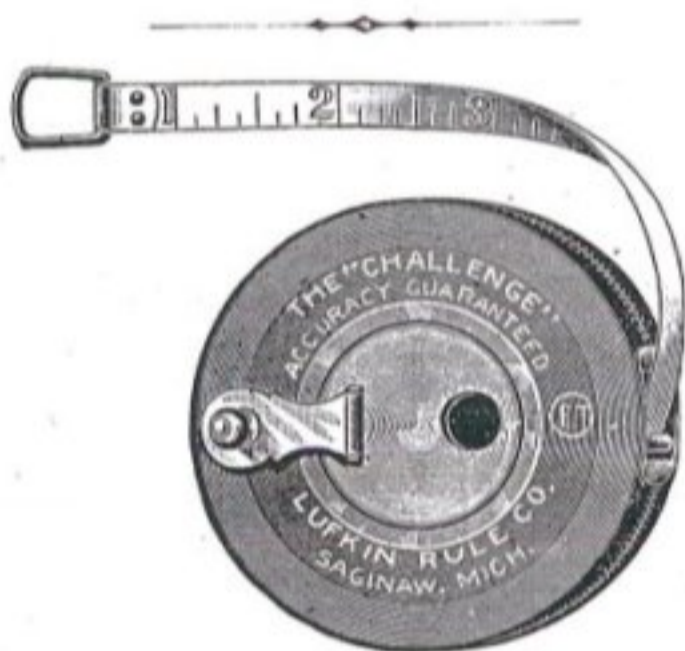
Reliable Junior Steel Tapes

With double folding flush handle, opened by pressing small pin or button on opposite side, hard leather cases and nickel plated trimmings.

WITH $\frac{1}{4}$ INCH TAPES

25 feet long, 10ths or 12ths,.....	\$2 75
50 " " 10ths " 12ths,.....	4 00

A first class and elegant Vest pocket steel tape; a 50 ft. steel tape, weighs only 5 oz. complete.



Challenge Steel Tapes.

Hard leather cases, nickel plated trimmings, flush handle.

WITH $\frac{3}{8}$ INCH TAPES.

50 feet long, 10ths or 12ths,...	\$4 00
75 " " 10ths " 12ths,.....	5 00
100 " " 10ths " 12ths,.....	6 25

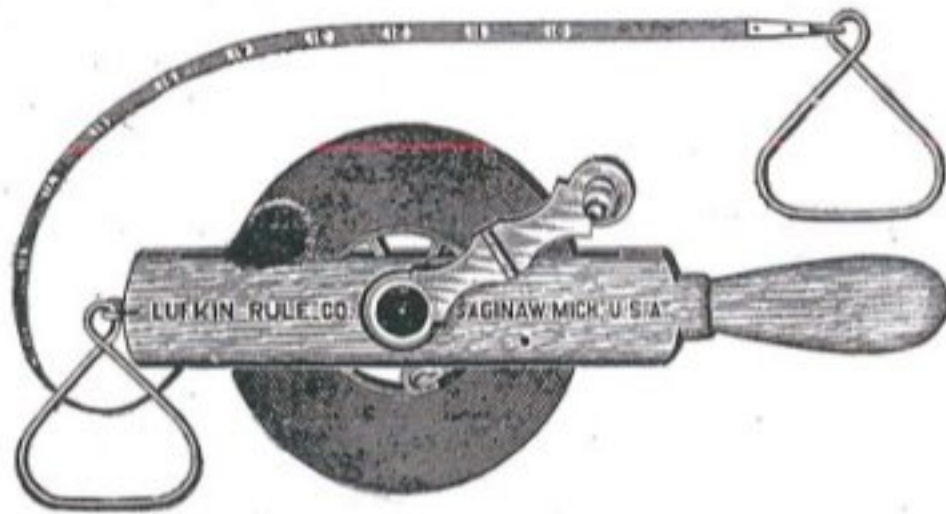
Tape Chains or Ribbon Chains

Roe's steel tape chains, electric reel, graduated every foot, end feet graduated to 10ths.

No. 1 A, 100 feet long, plain, \$5.00; nickel plated, \$6.00.

No. 4 B, 66 feet long, graduated every link, plain, \$5.00; nickel plated, \$6.00.

No. 7 A, 50 feet long, graduated every foot, end feet in 10ths, plain, \$4.00; nickel plated, \$5.00.



Surveyor's Chain Tapes.

With heavy $\frac{1}{4}$ in. steel tapes. Nicely finished hardwood reel with large metal folding handle and two large detachable rings. Trimmings nicely nickel plated.

Graduated every foot, the end feet in tenths or twelfths. Unless otherwise specified these tapes will be furnished with end feet graduated to tenths.

100 feet, complete with Reel, each.....	\$ 6 00
200 " " " "	9 00
300 " " " "	12 50
100 feet Tape only, with two Rings, each.....	4 00
200 " " " "	7 00
300 " " " "	10 50
Reel only,.....	2 00
Rings only, per pair.....	50

The Best Chain Tape or Band Chain Made.

This article is something new in the way of chain tapes or band chains and is far superior to anything ever put on the market in this line. The graduations are not made with rivets which weakens the tape, or with soft metal which makes it clumsy and wears off, but wherever graduated, the steel has a bright, raised surface with the figures etched in. The steel being tempered and of the finest quality, the graduations and figures will never be effaced, but will always show up clear and distinct. The frame and winding apparatus is strong, durable and compact, and can be conveniently carried in the pocket when the tape

is not in use. The tape can easily be detached from the frame, and is provided with two large and strong detachable handles or rings. When the tape is not in use these handles are fastened to the frame where they will not get lost and at the same time they serve as a convenient handle for carrying the complete tape.

As a convenient, strong, durable chain tape for heavy out-door work this excels all others, and we guarantee it in every way.

Repair of Instruments.

To give stated prices for repairs to damaged Instruments is next to impossible, since the Instruments themselves, as well as the repairs necessary, vary so much. Having had quite a large experience in this particular line of work during the last thirty-five years, and having repaired Instruments of almost all of the various manufacturers during that time, we are prepared and competent to attend promptly to any repairs of Instruments which may be intrusted to us. It is our aim to turn out such work in this line as will give entire satisfaction and recommend itself both as to quality and price.

In sending an Instrument for repairs it is advisable to send tripod along, as in most cases it needs attention. If however the tripod is not out of order, it is not necessary to send it along with the Instrument, except it be of the old style of construction, having the leveling screws, clamp and spindle, etc., attached. In shipping Instruments it is best and cheapest to pack Instrument and case into a rough packing box, otherwise the Express Company will charge three rates.

In ordering goods to be shipped C. O. D., to parties not known to us, at least 10 per cent. of the amount of the order should be remitted with the order to insure prompt attention. Full directions as to which Express Company, Post Office, address, etc., should also be given.

