Albany, Texas, Oct. 1st, 1880.

T. F. RANDOLPH, Cincinnati, O.

The Telescopic Compass ordered from you some time since, was received in due time, and has been thoroughly tested by me, and I find it far superior to anything in the compass line I have ever used; to use a familiar western expression its a daisy. I would not be without it for five times its cost if I could have a car load of ordinary sight compasses given to me, and in the invention of this instrument, you have done more for Surveyors and Engineers than can be expressed in the English Language. There is however one improvement which I think might be made, and which would be a great help in this country, and which I hope you will give your consideration, and that is this your Telescope magnifies everything so when you have a short sight, and are running through small Mesquit bushes all are very near alike, when you take your eye away from the Telescope, you can't tell which bush is covered with the axis of your Telescope, and I have been compelled to run my eye along the tip of the Telescope, and try to distinguish the right bush which may sometimes be inaccurately done. How would it do to have sights like a gun, put on the top and bottom of the Telescope, it occured to me while I was running through some thick Mesquit brush a few days ago, when I did not have a flag man to put ahead, that this would be a very great help for me. If you have any circulars, price lists, etc., send me some, as I will want various things in your line from time to time. With many thanks for your promptness in shipping Compass, etc. I remain, yours etc.,

H. C. JACOBS.

The folding sights would be the best means of overcoming the above objections. As sights similar to gun sights would be too close to each other, and the eye, to be satisfactory. T. F. R.

Memphis, Tenn., Aug. 29th, 1880

MR. T. F. RANDOLPH, *Dear Sir:*—W. B. D. County Surveyor, ——county, Miss., at Grenada has to have a Compass, at present he is using mine, he is delighted with your Telescope attachment, but like a good many clings to the sights, and wants a combination of both.

In consideration of taking one of your Vernier Compasses at $60.00, 6 inch needle, would you not put on your Telescope shade and balance weight for his plain 4 inch needle compass? I have it here for trial and inspection by Teenck our instrument maker. As a civil engineer I pronounce it a good one to do plain work on lines that have been run; the needle plays well. D. has been doing work with it for the want of one better, he is now able financially to invest in a good 6 inch compass. Teenck could not infringe on your telescope patent. This Telescope is a splendid addition to any compass, for one time you have gotten ahead of other makers. I hope you can accommodate my friend. Give me a reply. We think this plain compass worth about $15.00 It is understood that shade and weight must be with the telescope. I regard them as *indispensable*. The shade just balances the telescope, as well as protects the glass.

The weight on the north end balances the telescope. Yours truly,

OWEN MERRIWETHER.

Further improvements for the benefit of Surveyors.

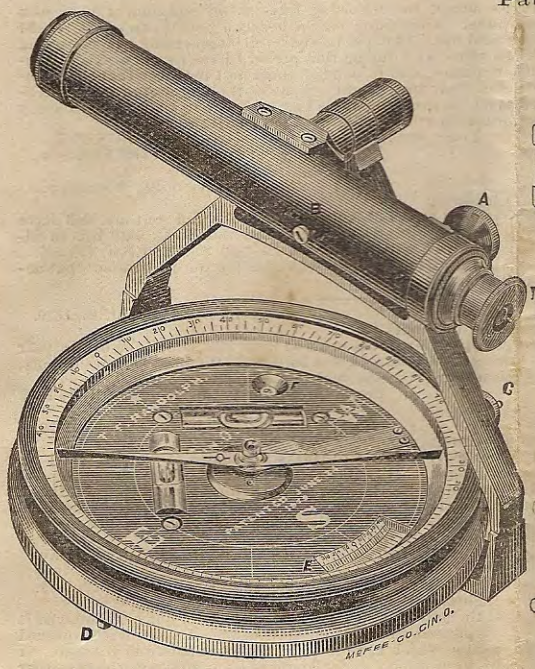
Cincinnati, Oct. 1880.

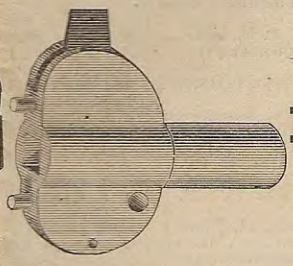
I am just getting up the patterns for a more compact Sight Compass, the telescope may also be attached. The sight plate of the compass will be near 20 inches long when in use, but the whole compass with 5½ inch needle, will be packed in the same leather box as my new telescope compass, for transportation, after removing the sights same as is done on any ordinary compass, in order to get it into the box. Patent pending. The prices will not be much above the common sight compass, unless the telescope is also added.

T. F. RANDOLPH.

RANDOLPH'S NEW TELESCOPE COMPASS

Patented June 24, 1879.





T. F. RANDOLPH,

Manufacturer and Dealer in

Mathematical Instruments

SURVEYORS' COMPASSES,

Theodolites, Transits, Levels, Iron & Steel Chains, Tape Lines

Drawing Instruments, Drawing, Profile and Cross Section Papers, &c.

ESTABLISHED 1853.

WORKS RUN BY STEAM.

No. 51 West Fourth Street,

Room No. 24,

South West Corner Fourth and Walnut Streets,

CINCINNATI, O.

Having been aware for years of the necessity for a compact, accurate Surveyor's Compass with a telescope, at a small advance over the ordinary sight compass, I represent, by above cut, the Vernier Compass with Telescope, complete. The following explanation, with reference to the cut, will enable any surveyor to understand it; the Telescope is detached when in the box, similar to ordinary sights, and the whole instrument (except the staff mounting or tripod head) fits into a sole-leather box, 8 inches square by 5 inches thick outside, and is carried by a strap over the shoulder while the instrument is in use, without inconvenience. Weight of box, 2 lbs.

The Key represented by the cut operates every part; the head A is the focus screw for the Telescope; B is the adjustment of the cross wire; C raises or lowers needle when not in use. There is a device for settling the needle, independent of the screw, and is operated instantly with the thumb and finger; D is a rack movement for the vernier, the clamp head is near this with a shoulder on the outside, but not shown in the cut; E is the variation vernier, reading to minutes; F is the outkeeper, operated at edge of plates; the Levels are entirely protected, being covered by the lower plate, and adjustable from the face of the compass; the bearing of the center spindle is 1⅝ inches long, but not shown in the cut, and is fastened by spring pin, working in a slot. The Compass can be used on Tripod or Jacob Staff, Needle circle divided to ½ degrees. The center of the Telescope is in a parallel line with the verniers and zeros, and over the center of the compass. The Telescope revolves both ways, for back and forward sights; its detachment from the compass for boxing is as simple as the ordinary sights, the screws being operated by the two pins on the key; the screws fit through the bottom plate, and will unscrew only far enough to let the standard drop off the steady pins; the adjustment of the cross wires is made between two points, as follows; the instrument being level, bisect some point with the vertical wire, revolve the telescope one-half around on its axis, and the opposite direction from the first object to another distant point; turn the instrument one-half around on its axis until the vertical wire bisects the first object observed, turn the telescope as before and see if it again bisects the second point observed; if it does, the adjustment is right; if not, one-quarter of the error is corrected by moving the cross wire, one-quarter by moving the instrument on its socket, and one-half by moving one of the points observed.

By the way these Compasses have sold I feel satisfied that they will take the place of common sight Compasses wherever used or known. Patented June 24th, 1879. The advantage, in the first place, is its Simplicity of Construction; second, Telescope instead of ordinary sights; third, Accuracy and Compactness for Transportation; fourth, Cheapness and Lightness of the Instrument.

PRICES.

As above described for Jacob Staff, including the Brass and Mounting.

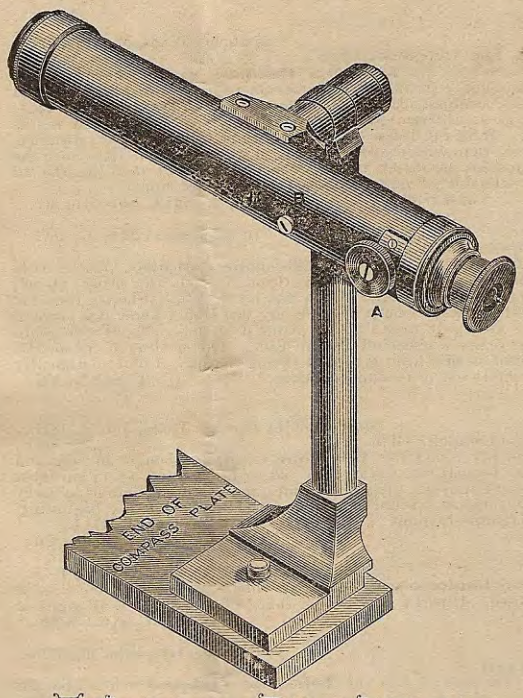
Vernier, 6-inch Needle, Wgt. 6½ to 7 lbs.	*$60.00*
Plain 6-inch " " 6½ to 7 lbs.	*55.00*
Plain 5-inch " " 4½ to 5 lbs.	*50.00*
Vernier 5-inch " " 4½ to 5 lbs.	*55.00*
5½-inch Needle R. R. Compass, with full circle, 6¾-inch diameter, with variation Vernier, the only size of R. R. Compass I make, Weight, 8 to 8½ lbs.	*90.00*
Also, R. R., same sizes as the above, without variation Vernier, Wgt. 7 to 7½ lbs.	*75.00*

EXTRAS.

Tripod, with Clamp and Leveling Screws,	*$15.00*
Tripod, with Ball and Socket Adjustment,	*5.00*
Jacob Staff, " " "	*2.00*
Staff Mountings, with first Tripod	*3.50*
" " " last "	*2.00*

In the latter case one Ball answers for both Staff and Tripod.

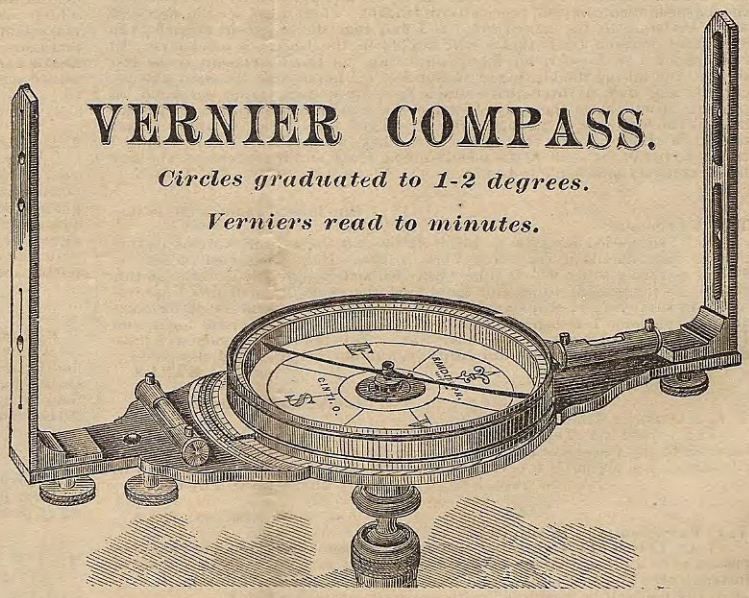
Key, when separate, or an extra one	*1.00*
Level and Clamp and Tangent on Telescope axis; the Level revolves on its own axis for back and foresights	*15.00*
Set of Folding Sights on the Telescope	*8.00*



VERNIER COMPASS.

Circles graduated to 1-2 degrees.

Verniers read to minutes.



Telescope Attachment.

To take the place of one of the sights of a common Compass, using the same Telescope that I used on New Telescope Compass. It reads in line with the sights, without any offset from the center of the Instrument. Can be removed same as the sight. Must have the Compass to make the Attachment.

PRICE: Attached, complete, to any Compass, $15 00. Weight about 1¼ lbs.

T. F. RANDOLPH, Cincinnati, Ohio: Your Telescope Attachment works splendidly. Loupe City, Nebraska, August 21, 1879.
Yours truly, M. A. HARTLEY.

ALL of our INSTRUMENTS, when sold, are in adjustment and ready for use. The Compasses, as we make them, scarcely ever need any re-adjustment. The needle should cut opposite graduation in every position very accurately. The sights should reverse on a plumb line. The bubble of level should remain in the center while compass is turned around.

Surveyors sometimes complain of their Compass needles losing their magnetic qualities; this, in most all cases, is owing to the bluntness of the center pin or needle pivot This is one of the most difficult parts of an instrument to repair, and can only be done right by an experienced Instrument Maker. The center pin can be unscrewed and sent by mail, with the needle, all enclosed in a piece of light wood, so as not to be injured. To save time and trouble of writing two or three letters, in a case like above, our charge for sharpening the center pin, and re-charging the needle, is ONE DOLLAR and return postage. If this amount is remitted to us with needle, we can return it as soon as done.

When needle instruments are not in use, we recommend Surveyors and Engineers to let the needle rest on the pivot; in this way it will retain its magnetism longer; but, always in transportation, screw the needle firm against the glass.

In wiping the glass wich covers the needle-box, always breathe on it; this removes any electricity which may be caused by rubbing. For the purpose of cleaning the glass, wet the tip of the finger, and touch the glass also.

Repairing of all kinds of Instruments has become of great importance. Having the patterns of different parts for most makers' instruments, I can afford to do such work on reasonable terms. My charges are for actual time taken and material used, so that to undertake to give expenses for repairs is almost impossible, as often there are many little things about instruments that want some repairs, to make the instrument useful, which take time to fix. On the receipt of Instruments for repairs, we like to have the order: *Make* them *right* in *every respect.* Then we know what to do.

It is the best plan to send the Tripod; this, generally, needs some repairs, but we can always do without this if the distance is great. But when a Compass is sent to me to be repaired, *always* send the *socket* that fits the *Jacob Staff*, as the pintle that fits the socket to the Compass generally requires re-fitting to make the Instrument work correctly; besides, if the Compass needs *adjustment*, this is required, or otherwise we have to fit something to the Compass to adjust it on. Surveyors, when sending their Compass for repairs in its box, often forget this, because it is on the *Jacob Staff.*

EXAMINATION OF INSTRUMENTS.

I desire to be as liberal as possible in reference to giving satisfaction to customers. To parties needing Instruments I will forward Instruments ordered, with instructions to Express Agent to collect the amount of bill, and hold the money, and give the purchaser a reasonable time to test the Instrument (the purchaser to name the time desired in order) say from five to ten days, or fifteen days if specially requested.

If not found to be as represented, the purchaser to have his money returned to him, and Express Agent be directed to return goods to us, otherwise the money to be returned to us. In making this concession to customers, I ask that when they order, they send the name or names of some prominent persons in their vicinity as reference.

The purchaser pays freight in all cases. The purchaser also pays charges for return of money by Express. Instruments properly packed for shipment. Great care should be taken to give plain directions, name, town or city, county and State.

REMITTANCES.

Post-office Orders, Registered letters, Express, or Drafts payable to my order. Don't send checks on your country banks.

To Purchasers Wishing to Trade Old Instruments.

Parties wishing to trade old instruments on account of new ones, *must send their old ones* for my examination and *valuation.* This will save writing several letters, and is absolutely the only way in which I can trade; or, place the price on the old instruments when you ship, and, if satisfactory, the new instruments can be shipped at once. C. O. D. the balance, if any. I allow for old instruments all I think I can sell them for after adding for repairs made on them.

WHAT SURVEYORS WHO HAVE USED IT SAY ABOUT

RANDOLPH'S NEW TELESCOPE COMPASS.

Ottawa, Ohio, Sept. 12, 1879.

T. F. RANDOLPH, Esq., Cincinnati, Ohio.

Dear Sir: In reply to your inquiry would say, that the **Telescope Compass,** purchased of you two years ago, has proven itself to be all you claimed for it when I was at your shop. It is now as good as new; has not been out of adjustment since I got it, although I have used it almost constantly ever since. During the past two years I have surveyed land lines, etc., averaging upwards of 300 miles with the new compass, and have therefore no hesitancy in saying that the instrument combines the very best qualities for accuracy and general practicability in such work as resurveying sections, running lines, roads, and other work usually performed by a needle instrument.

I use the instrument both on Tripod and Jacob staff, but principally with Jacob staff, mounted by ball and spindle, and find that mounting just the thing wanted for the purpose. With the Telescope Compass, on an ordinary clear day, a flag staff can be seen and set with more accuracy at the distance of 40 chains, than can be done with an open sight compass at the distance of 10 chains, I have tried them side by side.

The theory advanced by some that a Telescope instrument used in woods, brush or thickets, is unhandy, etc., I find not well founded. On an average a flag-staff can be located double the distance with Telescope than can be done by sights, especially as long as the smallest speck of space is left open to see through; while with sights it is necessary to have space sufficiently large to see the person holding the staff before you can be sure that it is not a sapling, or some other vertical object intervening.

After running the boundary lines of a section and noting accurately their bearing, I have had but little trouble in running the subdivision lines and intersecting their corners, in most instances within a link. I notice also in surveying large areas, that the latitudes and departures balance more nicely since using the Telescope Compass. Yours truly,

AARON OBERBECK, C. E., and
County Surveyor, Putnam Co., O.

DeKoven, Ky., Sept. 19, 1879.

T. F. RANDOLPH:

Dear Sir: The **Telescope Compass** purchased from you has proven eminently satisfactory in every particular. I am *well* pleased with it.

Respectfully, etc., JOHN WHITEHEAD,
Supt. for P. G. Kelsey & Co., Shotwell Mines, Ky.

Yellville, Marion Co., Ark., Sept. 24, 1879.

T. F. RANDOLPH, Esq., Cincinnati, O.

Dear Sir: I received my **Telescope Compass** April 16th, 1879, and I wish to say, after something like five months work with it, that I can find no objection against it. It is complete in every respect. I can take observations, long or short distances, with a great deal more accuracy than can be done with old style sight compass, and as quick. There can not be any objection made against it in a brushy, mountainous or prairie country. It is better for all than transit or old sight compass. It is superior to transit, because it is more simple and compact for transportation, and just as accurate in work. And I don't think that any surveyor would after trial think of comparing it with old sight compass in any respect. I would not do without one of them under any consideration. Yours with respect,

J. W. HARRIS, Co. Sur., Marion Co., Ark.

Eau Claire, Wis., Sept. 11, 1879.

T. F. RANDOLPH:

Dear Sir: I am well pleased with the new **Telescope Compass** bought of you in April last. I have used the same many times since. The instrument gives full satisfaction, and I do not want to use my compass with plain sights any more. Very respectfully, yours, W. WEISSENFELS.

Paris, Ky., Sept. 10, 1879.

T. F. RANDOLPH, Esq., Cincinnati, O.

Dear Sir: I have been using one of your **Telescope Compasses** for about eighteen months, and find it to be every thing you claim. No one can fully appreciate it unless they use a plain sight compass occasionally– then the difference can be seen. I can of a clear day set a flag staff a half mile with all ease. For running long lines, up and down hills, through brush and undergrowth, it is far superior to the plain sights. On several occasions this summer I ran lines through corn fields, and found the Telescope to be a great relief to my eyes. It is much more convenient to carry than plain sight compass, being about one-half of the weight.

Very respectfully, R M. KENNEY,
Surveyor of Bourbon Co., Ky.

Bond Beach, Sept. 15, 1879.

T. F. RANDOLPH:

Sir: I have used the **Telescope Compass** I bought of you last spring and am well pleased with it, so quick to change forward to back sight. I would not change it to-day for any other. I at first thought it would not work well in thickets, but I find if there is any opening at all I can distinguish my flag pole and place it correctly.

Yours respectfully, JOHN H. TUCKER,
County Surveyor, Huron Co., Mich.

Centre, Ala., Sept. 13, 1879.

MR. T. F. RANDOLPH:

Dear Sir: Your favor of the 9th inst. to hand and contents noted. I willingly testify to the excellence of your new **Telescope Compass.** I have been using one of them about fifteen months. For accuracy it is unsurpassed. I have never seen anything that equalled it for convenience, in use or transportation. I would readily recommend it to any one wishing to buy. I find no inconvenience in using it, notwithstanding I am deprived of my right hand.

Respectfully, S. C. LOKEY,
City Surveyor, Cherokee Co., Ala.

Cynthiana, Ky., Sept. 10, 1879.

T. F. RANDOLPH, Cincinnati, O.

Dear Sir: After thoroughly testing the **Telescope Compass,** purchased of you more than a year ago, I find it the most complete instrument of the kind now in use, being both accurate and durable. It has given entire satisfaction, and comes fully up to your recommendation.

Yours truly, ORIE LEBUS.

Hamilton, O., Sept. 9, 1879.

T. F. RANDOLPH, Cincinnati, O.

Dear Sir: I have used the new **Telescope Compass** I bought of you, for more than a year. It gives the best of satisfaction, being far superior to the old kind in convenience in sighting and carrying, and in accuracy. I think it is as perfect and accurate as a surveyor's compass can be made. I would most cheerfully recommend it to all surveyors.

Very truly, &c., R. S. CARR.

Ottumwa, Iowa, Sept. 13, 1879.

T. F. RANDOLPH:

Dear Sir: Please accept the following lines as my opinion of your new **Telescope Compass.** After using one for nearly a year, I can say it is just the instrument for field use. I have followed civil engineering and surveying for more than fifteen years, and during that period I have used a number of instruments of various makes, and in none of them do I recollect that they contained the qualities of your instrument. Some of the foremost of those qualities are its lightness on the surveyor in his long and tedious walks; its accuracy and compactness for transportation; its easiness of adjustment.

Yours, etc., SAM'L H BURTON,
County Surveyor and Civil Engineer.

Greenville, Mississippi.

T. F. RANDOLPH, Cincinnati, Ohio:

I have to-day received the **Telescope Compass** you sent me, and have decided to retain it without giving it a further test than to see that it is in adjustment. I am well pleased with it. T. S. ANDERSON, C. E.

[This gentleman was to have ten days for testing the instrument, but accepted it on examination.]

Knoxville, Tenn., Sept. 15, 1879.

MR. T. F. RANDOLPH, Ciucinnati, O.

Sir: The **Telescope Compass** ordered from you something over a year ago, has given entire satisfact on, and has fully met the highest expectations, and I cheerfully recommend it as the very best.

Respectfully, W. A. GALBRAITH.

Harrison, Hamilton Co., O., Sept. 11, 1879.

T. F. RANDOLPH, Cincinnati, O.

Dear Sir: The new **Telescope Compass** purchased of you on April 12, 1879, gives entire satisfaction. It is much superior to the plain sight compass, and much easier upon the eyes. The levels work nicely when in use. It is a light, handy, compact instrument. The Telescope shows up finely. I have no difficulty in seeing the flag staff plainly at a distance of one mile. It is all that can be desired for the ordinary land surveyor.

Very respectfully, FRANK BOWLES, Surveyor, &c.

Hinton, Ky., March 17, 1879.

T. F. RANDOLPH, Cincinnati, O.

Dear Sir: I have thought of writing to you long since, but have delayed it until now. I am well pleased with the purchase of one of your new improved **Telescope Compasses,** which I purchased from you about one year ago. It is much better than the common sight compass. I would not use any other but the Telescope Compass which I purchased from you. I have recommended your new improved Compasses to one of our county surveyors. I think he will buy one of you sometime soon. If he purchases of you I think he will be pleased. I recommended it very highly to him.

From yours, etc., J. G. STONE,
Hinton Station, Scott Co., Ky.

Dayton, Ohio, July 17, 1879.

T. F. RANDOLPH, Esq., Cincinnati, O.

Dear Sir: In answer to your question of the 12th inst., I will say that I have used your Theodolites and Level for the last fifteen years, and they have always given entire satisfaction. I have also used your new **Telescope Compass** a short time, and consider it the most satisfactory needle instrument I have ever used. Yours truly, J. S. BINKERD.

Fayette, Howard Co., Mo., Sept. 12, 1879.

T. F. RANDOLPH, Esq.

Dear Sir: I have given the new **Telescope Compass** bought of you a thorough trial, and find it all that you represent it to be, and I am well pleased with it. For rapidity, accuracy and convenience it is far superior to the old style sight compass, and for ordinary surveying it is the best instrument I have ever seen. Respectfully, H. C. SHIELDS, County Surveyor.

Millersburg, Ky., Sept. 10, 1879.

T. F. RANDOLPH, Cincinnati, O.

Dear Sir: The **Telescope Compass** I got from you is all you claim for it. It works well, is simple in construction, easily adjusted, very light, and when in the case is very handy to carry, especially when walking or on horseback. Attaching a telescope to a compass is a decided success and a great improvement; and you I believe, are the only maker who has attempted it. I would not under any consideration exchange mine for one of the old-fashioned "slit-sight" compasses. Yours, truly, CHARLES M. BOULDEN, B. A., &c.

Iowa City, September 28, 1879.

MR. T. F. RANDOLPH:

Dear Sir: The **Telescope Compass** I purchased of you has given perfect satisfaction. I have used several different kinds of instruments, and can heartily pronounce it the best instrument for land surveying I have ever used. Its valuable qualities are in its lightness, strength, and accuracy of adjustment in all its parts. The telescope attachment is a very valuable improvement. and inasmuch as it is very cheap, I think that every old surveyor will readily see its advantages. Its facilities for packing are a great addition to its value. It is packed in a neat leather case, so as to be conveniently carried on horseback with perfect safety. I would advise persons intending to purchase to try this instrument before purchasing any other kind.

I am very truly, yours, RICHARD L. AYER, Iowa City.

Bowling Green, Ky., Sept. 11, 1879.

T. F. RANDOLPH, Esq., Cincinnati, O.

Dear Sir: I have used your new **Telescope Compass** for two years, and find that my work is much more accurate than when I worked with the old style compass. I would not have the best ordinary sight compass that I ever saw if it was given me and take cost for my new Telescope Compass.

Respectfully, &c, G. C. STAYTON.

Stockton, Rooks County, Kansas, Sept. 20, 1879.

T. F. RANDOLPH, Cincinnati, O.

Your new **Telescope Compass** proves to be a success. I bought one of you a year ago last April, and have had it in almost constant use ever since, and it has proved to be all you claimed for it. I bought the second one last April for my deputy, which he has used all summer, and is very much pleased with it, on account of its convenience in using and carrying, as we both travel on horsebaek over this rough, hilly country; we have learned the value of the sole-leather box and shoulder strap, which we could not use with the old style compasses. The Telescope, with its transit movement, is a decided advantage over the old slot-bar sights.

Very respectfully, S. S. BOGGS,
County Surveyor, Rooks County, Kansas.

Groesbeck, Texas, January 15, 1877.

T. F. RANDOLPH, Esq.

Dear Sir: Since my letter (in November) to you I have had an opportunity of trying my new **Telescope Compass** more fully, and like it very much—better than I thought I ever should. It is, in my estimation, far superior to the old-fashioned compass, especially in thickets, where I can see the flag staff when invisible to the naked eye. So I find that the objection urged by the Surveyors (without trial) that it will not do in the timber is a mistake. In running out a twelve-acre lot, lately, on setting up the instrument at the last station, and taking the bearing of station No. 1, I found that the sight exactly cut the flag staff, a three-quarter-inch pole—an accuracy that surprised all present. I will state the only objection that can be raised against the instrument is the difficulty of arranging the tripod and leveling up, it taking rather too much time; another is, the use of the key, when milled heads would, I think, be better; at least to the needle-lifting screw and the telescope, the key being unhandy and liable to be lost. Yours truly, W. T. COX.

Cincinnati, January 10, 1879.

T. F. RANDOLPH:

Sir: I succeeded my father (Julius Hanks) in the manufacture of mathematical instruments at Troy, New York, in 1836. I was succeeded in 1843 by Phelps & Gurley, since which time I have worked in different factories in this country to the present time, and have kept the general run of new improvements in surveying instruments made by different manufacturers. I have examined your new Telescope Compass and can say it is all you claim for it, and I believe every surveyor should have one. "It is the best instrument I have ever seen" for compactness, durability, simplicity, accuracy and cheapness.

OSCAR HANKS.

Pittsburg, Camp County, Texas.

T. F. RANDOLPH, Cincinnati, Ohio:

I have used the **Telescope Compass** bought of you, and find it to be superior to any I ever saw or used. It is all right. The instrument has all the advantages you claim for it over the old instrument. I am well pleased with it.

Yours truly, DOUGLASS PUCKETT.

Corsicana, Texas.

T. F. RANDOLPH, Cincinnati, Ohio:

Your **Telescope Compass**, which I have been using for some time, has proven to be all that can reasonably be expected of so light and convenient an instrument. You should have sent me a compass Tripod, as a Telescope Instrument can not well be used in a prairie country upon a Jacob staff.

Respectfully, B. F. MARCHBANKS.

Cohoctuh, Livingston County, Mich., August 4, 1878.

T. F. RANDOLPH, Cincinnati, Ohio:

Dear Sir: I will say that the **Telescope Compass** I received of you the 25th of last February, by express, gives the best of satisfaction. I can see a flag pole distinctly as far as the flag-man can see me motion, and the advantage over the old sight compass is, that the surveyor can detect any inaccuracy in the holding of the pole at a long range, thereby avoiding being thrown out of a true course, and it is so compact and handy, a surveyor can carry his whole kit along when compelled to go on foot.

Yours respectfully, ISAAC TELLER, County Surveyor.

Comanche, Texas, May 24, 1877.

T. F. RANDOLPH, Esq., Cincinnati, Ohio:

Dear Sir: I received my **Telescope Compass** some weeks since, and after trying it thoroughly think that this instrument is a decided improvement on the old style of compass, because it can be carried in very small package, which makes a great difference, especially on the frontier, where surveyors make long trips. With the Telescope, objects can be taken at a great distance, and more correctly than with ordinary sights. I like the screws that move the needle and vernier, for the reason that *by-standers can't move them* like the old milled screws. Altogether I am well pleased with the instrument.

Yours truly, T. R. HILL, Surveyor, &c.

Ottawa, Kansas, June 13, 1877.

T. F. RANDOLPH, Cincinnati, Ohio:

After several weeks trial of my new **Telescope Compass**, purchased of you, and being out in all kinds of weather, through woods and brush, up and down hill, for tracing lines through timber and brush, I like it better than the plain sight, for this reason: when I catch my flag staff I know it is correct. The plain sights are apt to vary a little. After using my compass with plain sights for thirty years, I cheerfully lay it aside. The settling of the needle with the improved needle-lifter is a great saving of time. I find no difficulty setting a flag correctly one or two miles distant. R. KINNEAR.

Centre, Shelby County, Texas, June 4, 1877.

T. F. RANDOLPH, Cincinnati, Ohio:

I have thoroughly tested the **Telescope Compass** bought of you, and find it far superior for accurate work to the old style. I think every surveyor should have one, as they are cheap, accurate, and more convenient to carry than the common compass. I find no trouble in getting back to the beginning, if the chaining is properly done.

C. M. HILL,
County Surveyor, Shelby Co.

Middleburg, Ky., April 24, 1875.

I have used the **Compass** which Mr. Fair bought of you, and find it to be the best I ever used. It is the best needle that I ever saw. It is all right in every particular.

D. W. COLEMAN.

Danville, Ky., Sept. 13, 1879.

Mr. T. F. RANDOLPH:

Sir: I have thoroughly tested the **Telescope Compass** which I bought from you, and take pleasure in saying that it has always given entire satisfaction. And I regard it to be the best instrument that is made.

Respectfully, FRANK T. LOGAN.

Hillsboro, Hill County, Texas, April 16, 1879.

T. F. RANDOLPH, Cincinnati, Ohio:

Dear Sir: I have received my **Compass**, settled with Express Agent. I am delighted with the instrument. It is given up to be the finest Compass in the county. Our western counties have never been "sectionized," hence our lines run at every point of the compass, and our land in every shape, so we have much surveying to do, and compasses are in demand. Your instrument can not be excelled. Yours truly, W. M. VAUGHAN,
County Surveyor, Hill County, Texas.

PRICES OF PRINCIPAL INSTRUMENTS.

Plain Compass, 6-inch Needle, 15½ in. Plate, Brass Cover, 2 Ground Spirit Levels Adjustable, Outkeeper, strong, well made Box of Walnut, and staff mountings	**$40 00**
Plain Compass, 5-inch Needle, same otherwise as above	**35 00**
Vernier Compass, 6-in Needle, balance same as 6-in Plain	**45 00**
Vernier Compass, 5-in Needle, " " "	**40 00**
Jacob Staff, with Steel pointed Socket	**2 00**
Set of Extra Sliding Sights, for Leveling with Compass	**6 00**
Transit Compass, 6-in Needle, with Jacob Staff	**85 00**
Transit Compass, 6-in Needle, Tripod with Ball for Level'g, With Leveling Screw and Clamp	**90 00**
	100 00
Y Levels, 18-in Telescope, Walnut Box	**110 00**
Transit, Graduated on Sheet Silver, and on the best Engine in the country, strong Box of Walnut, with best of workmanship	**170 00**
Theodolite, same as above, with Level on Telescope, and Vertical arc, all kinds of work can be done with this Instrument	**200 00**
Either above, with Variation Vernier, costs extra	**20 00**

Theodolites, Transits and Levels, we generally Bronze or Black, as the rays of the sun on the instrument do not affect the eyes as much as bright instruments. Engineers generally prefer them on the above account. Also, face of Compass, Dial and new Telescope Compass are Bronzed.

12-foot Sliding Leveling Rod to read to 1-1000th of a foot, complete with Sliding Target, known as N Y. Rod	**15 00**
Flag Poles, 8 or 10 feet long. Steel Socket, well painted, Red and White, each.....Ash, $3 00; Pine,	**2 50**

MARKING PINS.

No. 4 Iron Wire, set of 11 pieces	**$ 75**
No. 6 " " " " short	**50**
No. 10 Steel " " " "	**75**

Drawing Instruments of all makes. Drawing Papers of different makes, and all supplies used by Surveyors and Engineers, as cheap as can be bought; also, deal in Second-hand Instruments.

CHAINS.

33 feet, No. 16 or 18 Steel Wire, 50 link, not tempered	**$ 2 00**
50 " " 16 or 18 " " 100 " " "	**2 50**
33 " " 8 Iron Wire, 50 " Coppered	**2 50**
66 " " 8 " 100 " " "	**4 00**
50 " " 8 " 50 " " "	**4 00**
100 " " 8 " 100 " " "	**6 00**
33 " Brazed Links and Rings, No. 12 best Steel Wire	**5 50**
66 " " " " " " "	**10 00**
50 " " " " " " "	**6 00**
100 " " " " " " "	**10 50**

CHESTERMAN'S TAPES.

Metallic Tape Measures.

33 feet long, in 10ths or 12ths, each	**$ 2 35**
50 " " " "	**3 00**
66 " " " "	**3 30**
75 " " " "	**3 75**
80 " " " "	**4 00**
100 " " " "	**4 75**

STEEL TAPE MEASURES.

All Steel, to wind up in a Box, same as Linen Measures; the most accurate, durable and portable measure.

10 feet long, in 10ths, or 12ths, in German Silver Case, each	**$ 3 50**
33 " " " " each, Leather	**6 25**
50 " " " "	**8 50**
66 " " " "	**11 00**
75 " " " "	**12 50**
100 " " " "	**16 99**

STYLE OF COMPASS NEEDLE.

This cut represents the shape and style of my MAGNETIC NEEDLES, which, on several occasions, has been hotly discussed. The needle is light, and gives large surface to the points; up and down being only a fine line when looking down upon it. This large surface enables the needle to retain a large amount of electricity. They are finely polished and blued.

Price, by mail, $3.50; adjusted to Compass, $4.50.