



Daily Mining Journal.

MINING JOURNAL COMPANY. PUBLISHED BY THE MINING JOURNAL COMPANY.

Entered as second-class matter, October 3, 1905, under No. 1073, post office at Marquette, Mich., and mailing at special rate of postage provided for in Act of October 3, 1917, authorized on July 16, 1918.

Subscription Rates. One year, by mail, \$10.00. Six months, by mail, \$6.00. Three months, by mail, \$3.50.

James Russell, Editor. Marquette, Mich., January 4, 1918.

FROM A PARAGRAPH IN THE NORWAY CURRENT, we gather that Hurley, the Iron Mountain lawyer, is developing into an apostle of the cause of labor.

THE DETROIT EVENING JOURNAL takes cognizance of a report to the effect that from 200,000 to 250,000 tons of iron ore will be shipped from mines on the Menominee range to Cleveland by rail between now and the opening of navigation.

THE EMPLOYEES OF THE EDGAR THOMSON STEEL WORKS COMPANY, at Pittsburgh, Pa., have received notice that he scale and wages contract for 1886 is in the offices of the different departments for signature, and all persons who refuse to sign the same will be excused at their positions.

WE SEE IT STATED IN THE FOND DU LAC REPORTER that the blast furnace there, which has been out of blast for some time (it has never yet been operated in real downright earnest), will blow in again about the middle of March.

IF THERE ARE SO MANY BIG IRON MINES in the vicinity of Tower, Minn., and so much activity in mining there as outside papers tell of, why does the Tower Press keep so confidentially silent concerning them? Week after week we tear the wrapper from that sheet in the hope of learning something about the work going on in the Vermillion district, but ever to be disappointed and to throw the paper aside in disgust.

SATURDAY'S IRON PORT CONTAINS THIS EDITORIAL AVAIL OF PRINCIPLES: THE MINING JOURNAL copies a paragraph from the Iron Port expressing a hope that the republican senators would have no opposition to the confirmation of Mr. Cleveland's nominees to office—even "unless they are too bad"—to compliment the "generosity" of its editor at the expense of his veracity.

VERY WELL, help yourself to all the rope needed. But, all the same, the MINING JOURNAL regrets to hear that its valued content, is determined on suicide.

THE MINING NEWS, of Florence, gives these particulars regarding the Cuff property, in which there is considerable interest felt since the recent developments thereon: John Cuff has an option on the west half of the northeast quarter and the southeast quarter of the northeast quarter of section 21; the south half of the northwest quarter and the south half of section 22; the west half of the southwest quarter and the southeast quarter of the southwest quarter of section 25, town 40 north, range 30 west, Menominee county, Mich., quite near Lake Antoine.

friends of Capt. Dickinson will be glad to know that he has an interest in what bids fair to be a big thing. It is to be hoped that every anticipation will be realized.

ORDINARY newspaper controversies pale into insignificance in contrast with the savage war in which the editors of the Sunday Telegraph and the daily Sentinel, both of Milwaukee, are just now engaged.

YESTERDAY'S SUNDAY TELEGRAPH has a two-column reply to a previous attack of the Sentinel on Col. Watrous, in which the latter gentleman alludes to Mr. Rublee in language more vigorous than affectionate. He actually calls the late minister to Switzerland a "draft-sneak," and intimates that if the devil were as mean as he, his Satanic majesty would be a much more obnoxious personage than he is popularly credited with being.

THE MEMOIR AND MARINETTE PAPERS lately published the statement that there were 200,000,000 feet of old logs in the Menominee river and tributaries. Charles J. Ellis, secretary of the Menominee Manufacturing Company, has corrected the statement, putting the amount of old logs in the stream at the close of 1885 at 75,000,000 feet, which includes all in the main and storage booms and mill pockets.

WE HAVE THE TESTIMONY OF ONE OF THE MEMOIR MANUFACTURERS that when the Menominee or Marinette reporters go to the office of his concern for news items the attaches there "give up" nothing. If all the mill companies and firms at the mouth of the Menominee are of the same stripe, it is no wonder that the local newspapers there publish erroneous statements, and it serves the mill men right to boot.

ALL ORDERS WILL RECEIVE PROMPT ATTENTION BY ADDRESSING: J. HALDANE EDWARDS, 5-23 Drawer 688, Hancock, Michigan.

THE COPPER MARKET is firm, and but light business has been done during the week. There exists a feeling that but little change in prices can come for the next two months, or while the present lake contracts run, but it is also expected that, after that, a considerable advance may take place.

WE QUOTE LAKE, 11/4 @ 11 1/2 c. Baltimore and Orford, 10/10 @ 10 1/2 c. Arizona special brands, 10/10 @ 10 c. We have recent full advices from Montana and Arizona, which indicate that during the coming year no increase in production is possible from these districts.

THE SAME AUTHORITY has this report from its Boston correspondent, relative to the movement of copper stocks on the Boston board for the closing week of the old year: There has been but very little doing the past week in copper stocks, but prices are held quite firm, and there is no disposition to press sales. The buying has been mostly of an investment character, and the largest trans-

S. BICE & BRO., PROPRIETORS OF SOUTH MARQUETTE. Planing Mill AND SASH FACTORY.

FOUND DOWN THE MACKINAW. NEWBERRY, Jan. 1.—Dr. Fraser has again visited Douglass Morrison, the homesteader who had his leg amputated about ten days ago, and found him as merry as a cricket.

WANTED TO BECOME A CITIZEN. There was submitted to the commissioner of Indian affairs a request from a Kiowa Indian student at Lincoln University, Pennsylvania, to be admitted to citizenship.

A CHRONOLOGICAL ABBREVIATION. The abbreviation "C.R." used in chronology means about as, for instance, C.R. 1013, A. D.: about 1013, A. D. The word is from the Latin "Circum," meaning around.

MY WIFE AND CHILDREN. Rev. L. A. Dunlap, of Mt. Vernon, says: My children were afflicted with a cough resulting from measles, my wife with a cough that had prevented her from sleeping more or less for years, and your White Wine of Tar Syrup has cured them all.

BLASTING POWDER. Hancock Chemical Company. Works near Hancock, Michigan. Office, 38 Platt street, New York.

E. T. DREW, DECORATOR. LARGE LINE OF Wall Paper, Ceiling Decorations, ETC., ALWAYS ON HAND. Paints, Oils and Painters Supplies.

TIMOTHY NESTER. PINE LANDS, LOGS AND LUMBER. OFFICE IN THURBER'S BLOCK, MARQUETTE.

Shell Oysters, Shell Clams AND CLAM CHOWDER AT Eureka Restaurant! Board with or without rooms. F. HEPPNER, Prop'r.

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F. B. SPEAR. Hard and Soft COAL. BLACKSMITH COAL. BEST IN THE MARKET.

Hay, Grain, Feed, Flour, Cement, Plaster. Brick, entirely free from Lime, CARBON OIL, MARQUETTE, MICH.

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H. E. BITTNER'S. Blacksmith, wagon and horseshoe shop, Freeman's former stand. Superior Street, Marquette.

THE LAKES SUPERIOR CARRIAGE WORKS. MARQUETTE, MICH. CUTTERS! CUTTERS! CUTTERS! Of all styles and of every description.

WATSON & PALMER'S. A large invoice of EDWIN C. BURT'S fine Ladies' Misses and Children's Shoes, in widths A, B, C, D, E and F. No need to send away any more for either slim or wide shoes.

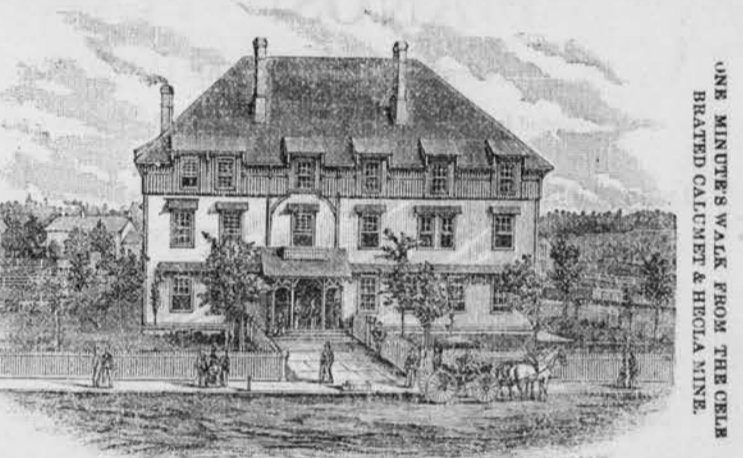
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ILLUMINATING AND LUBRICATING OILS. THE Lansing Sleigh. Manufactured by the Lansing Wagon Works. Selling Every Day Now Just the Same.

You who have not seen them undoubtedly have heard of them. The timber used in the construction of these sleighs is Michigan white oak, the iron and steel the very best money can buy, and it is a fact acknowledged by all who have used them to carry heavier loads with greater ease than any other sleigh on earth.

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CALUMET HOTEL, CALUMET, MICH. J. P. NORTH, Proprietor. The Only Hotel in Calumet. Good Sample Room on First Floor. Telephone Connection with all parts of the City.

J. E. REAU, Detroit, Mackinac & Marquette R. R. "MACKINAW SHORT LINE." The only direct route between the East and the Upper Peninsula of Michigan.

ICE. House and Safe Mover. PILE DRIVING. DONE TO ORDER. MARQUETTE, 9-25 MICH.

J. B. SWEATT, Contractor and Builder, (LATE OF CHICAGO.) Having decided to remain permanently in the upper peninsula, with headquarters at Marquette, I hope by fair dealing and by doing thorough work to secure a share of the building business in this district.

A NO. Allen, Jen. GROCER. NE. Fine T. Three cakes in 25c, and w.

TOWEL OR S. CHAS. Merck. Can sa. A SUIT OF C. OVERCOAT. All material g. lowest p.

CHAS. NEGAUNKE, Special A. FROM DRY G. MARS. N. Will sell for 30 da. commencing for anyv.

THE. Cheap. D. Samples sent. F. W. LUM. EAGLE MILL. Capacity of. All kinds.

PINE, HEMLO. SASH, DO. Mouldings, Pl. We have a l. pr. in. Cor. Lake and W. East of M. H. & L. LAG. MEES.

Marquet. -BR. Bottlin. FINE BO. Fo. Table and. Delivered.

B. Orders by. filled. Writer's & S. Sweet city. Don't be del. or fire-gilt st. Sundberg, the.

You can. your fall suit. tailoring estab. [9-23]. Sundberg's. best assortment.

Pork Sausa. The only pl. at Winter & S. Shellbark. at the Red Fv. Oysters by. For fresh. Winter & S. Italian che. C. Sundberg. for cash, and. any other de. Why will p. cheap, "sui. month, or si. perhaps "wa. very" Sundb. here for stay. w. Sundberg's. on good goo.





THE MINING JOURNAL.  
 PUBLISHED BY THE  
 MINING JOURNAL COMPANY.  
 A. P. SWINEFORD. JAS. RUSSELL. A. HORNSTEIN.  
 MARQUETTE, MICHIGAN, JANUARY 1, 1886.

THE MINING JOURNAL, a few days since, referred to there having come into its possession copies of the addresses, letters, etc., presented to Mr. and Mrs. John Burt on the occasion of their golden wedding, and though the documents came to it for a private purpose—the publication of a memento volume of the event—it took the liberty of publishing the part of Mr. Week's address, personal to itself. The JOURNAL has been desirous of presenting the historical portion of this interesting occasion to its readers, and having had the consent of the compiler of the memento above referred to, to do so, it takes great pleasure in embracing in its first New Year's issue, a supplement which contains so much of interest pertaining to the early history of the northern peninsula.

THE MINING JOURNAL has great pride in the fact that from its presses will issue this memento volume, a work which will embrace so much of the earliest history of the upper peninsula, that it might properly be called Volume I. of such a work.

The MINING JOURNAL is requested to state that when the work is ready for distribution, the many friends who participated in the celebration of the Golden Wedding day will be duly remembered.

In this connection it also presents a short sketch of the life of a man with whom the present generation has but a limited acquaintance, but to whom it owes a very great debt for his wonderful invention and the invaluable service which he and his family of five sons—John, Alvin, Austin, Wells and William Burt, rendered in connection with the survey of the great mineral districts of the Lake Superior region.

This sketch of the life of William Austin Burt, the inventor of the solar compass, is taken from the *Western Land Guide*, of June, 1883.

HON. WILLIAM AUSTIN BURT.

The highest eminence ever attained in the history of land surveying in any country was reached in his life time, by the man whose name heads this article, the inventor of the Solar Compass. By this invention he linked together in mystic, yet practical and useful bonds, the gross material things of the earth with the subtle sunbeams, as they trembled in the air in their swift earthward journey from the sun. Franklin brought the lightning from the clouds, but Burt, in his thought, traveled the almost infinite distance to the centre of our solar system, and availed himself of influences thence emanating, to aid the pioneers of our civilization, the land surveyors, in the performance of their exacting and arduous labors.

Other surveyors before him had met the difficulties in the way of satisfactory surveys, found, in part, in the local disturbances of the magnetic needle, especially in mineral regions. But none before him seem to have made any earnest effort to meet and overcome these difficulties. He met them, grappled with, and overcame them, in a way that has vastly benefitted science, greatly stimulated the thought of civil engineers and surveyors, and rendered plain and practical the work which, in some localities, was little else than guess work. The government has been benefitted by this instrument in the saving of vast sums of moneys, which surveys would have cost under the old system in excess of what they have cost, and in the systematizing of surveying in a manner that has attracted the attention of the world.

Wm. Austin Burt was born in Worcester county, Mass., June 13th, 1792. In 1798 he removed with his parents, Alvin and Wealthy Austin Burt, to Montgomery county, New York. There were no public schools there, but so eager was the boy to know what was in the world around him, that at 14 years of age he had mastered surveying, as then known, and had gained much knowledge of astronomy. He worked on the farm during the day, and at night studied, by the aid of a pine knot, into the "wee sma' hours." At 17 years of age he removed with his father's family to Erie County, N. Y., which was then in the "far west." In 1813 he married Phoebe Cole. He performed creditable service in the war of 1812. A little later he engaged in mercantile pursuits. In 1817 he made a journey as far west as St. Louis, doing jobs of surveying along the route. In 1822 he removed to Michigan. He first built a saw mill at Auburn, Oakland county. He next sought employment as a surveyor of Mr. Fletcher, a government surveyor. Not succeeding, he bought a tract of government land in Washington, Macomb county, and in 1824 moved onto it. From 1824 to 1832 he was engaged in mill building and local surveying. In 1826 and 1827 he was a member of the Michigan Territorial Council, and did much toward inaugurating that great improvement, the St. Mary's Falls Ship Canal. From 1831 to 1834 he was county surveyor of Macomb county. In 1833 Gov. Geo. F. Porter appointed him district surveyor. About the same time he was appointed postmaster at Mt. Vernon, Mich., and held the office for 24 years. In 1833 the U. S. Surveyor General appointed him a U. S. deputy surveyor for the district northwest of the Ohio. He at once went to his field, northward of Fort Gratiot, on the borders of Lake Huron.

Mr. Burt found, what all surveyors had previously discovered, that the variation of the magnetic needle led to inaccuracy in surveys.

The ordinance of congress of May 20, 1785, provided that "The geographer and surveyors shall

pay the utmost attention to the variation of the magnetic needle, and run and note all lines by the true meridian."

It was found in practice that this nice theory could not be carried out. Following the variation of the needle and noting lines by the true meridian led to the survey of tracts of trapezoidal form. On May 9, 1786, this part of the ordinance was repealed, and surveyors were authorized to note lines by the true meridian, as near as might be.

Mr. Burt did what other surveyors had not done, discovered a remedy for the variation of the needle. He thought that if the local disturbances which led to these variations could be overcome, surveyors might be much more accurate than they had been, and this led at length to the invention of the Solar Compass, by which the courses and distances are controlled by influences far beyond the reach of terrestrial disturbances.

In 1835 he exhibited a model of this compass to a committee of the Franklin Institute, at Philadelphia, the first scientific body of this country, and was granted a Scott's legacy medal. On December 14, 1840, he exhibited to the same institute a perfect Solar Compass, for which he received the highest commendation. In 1847 he wrote a manual for the use of the Solar Compass. In 1851 he visited the World's Fair in London, and received a prize medal, for his Solar Compass, from Prince Albert, president of the Royal Commission.

The Solar Compass is an astronomical instrument. The sun is utilized in working with it, although surveyors well versed in astronomical science sometimes use other planets. In the use of the common surveyor's compass, the only means available to determine the azimuth, or the true meridian, is an observation of the transit, or the elongation of the pole star at night, which can only be done on a clear night. Surveyors often, to secure good work, cut down trees and erected stakes, which was very laborious and expensive.

Various causes led to the deflection of the magnetic needle. Among them are local cause, hid in the earth's crust, heat and cold, thunder storms, and the heat or magnetism of the body of the operator. Often the pivot on which the needle swings would become blunt and the needle not traverse twice alike. The Solar Compass is independent of the needle, although it is constructed with one, and its use is valuable in magnetic forces and recording the variation from the true meridian.

On account of the facility and accuracy attainable by the use of the Solar Compass, in determining local attraction of the magnetic needle, in defining angles, as well as other advantages to be derived from its use, the late Dr. Douglas Houghton, geologist for the state of Michigan, conceived the idea of connecting the linear and geological surveys, and, by contract with the Commissioner of the General Land Office, under date of June 25, 1844, undertook the survey of a section of country, full of mineral wealth, bordering on the south shore of Lake Superior, and when nearly completed, came to a sudden death by drowning in Lake Superior, and with him were lost valuable facts and data in connection with this survey; but enough remained to show the value of the work done, which fact acted as an incentive to the further prosecution of this kind of work (to some extent) inaugurated by him. Consequently the surveyors-general having this district in charge required of their deputies additional work in obtaining specimens of rock and minerals, and recording their locations upon the lines and other points. This work was mainly done, especially on the exterior boundary lines of townships, and the most difficult subdivisions of these townships, by the inventor of the Solar Compass and his sons, often under very difficult, laborious and, in many cases, hazardous, circumstances to life and limb.

From many testimonials as to the work of this compass we refer to one or two.

Said Sir John Herschel to the inventor, in 1851: "I have long since understood the elements of the Solar Compass, but could not see how they could be carried out mechanically. It has fallen to your lot, sir, to not only conceive the necessary astronomical elements, but also to carry them into practical effect mechanically."

About 1850 the Commissioner of the General Land Office adopted the Solar Compass as the standard instrument, to be used wherever there are local disturbances of the magnetic needle. The late Hon. John Wilson, the Commissioner of the General Land Office about this time, said of this instrument, that Burt "seized a sunbeam as it fell, and compelled it to point out the magnetism and poles of the earth, and thus determine the latitude, true meridian, azimuth, variation of the magnetic needle, and local time, a mode of surveying independent of the magnetic needle."

Since the introduction of the Solar Compass into the public surveys, great changes have been effected in the mode of doing the work. Before its introduction the field notes of the surveyor were as bare and sterile as some of the plains of the west are said to be of life, of facts relative to the character of the survey, its mineral, geological, or topographical character; and the plats, generally, were a blank piece of paper checked up into squares and numbered to indicate the sections or townships, with here and there a stream, Indian trail, swamp or lake indicated upon them.

Immediately upon its introduction, the surveys began to improve, under the direction of its author. The variation of the needle was often taken and recorded, and in 1840, the first year it was used upon the public surveys, the line of no variation was traced and established by it in the northern peninsula of Michigan, and a map of the same returned with the field notes, and more minute details of the survey recorded. In mineral, rocky, hilly and

mountainous districts the topography was more carefully observed and sketched upon the plats; specimens of rocks and minerals were taken and their location noted, whether on the line or at a moderate distance from it. Very valuable iron and copper mines were discovered in the northern peninsula of Michigan by its use. From 1844 to 1846, many valuable and extensive iron deposits were discovered. So powerful was the attractive force of some of these deposits that they exerted an influence on the needle for a distance of six miles, and were thus traced out by their constantly increasing force of attraction. And all this was accomplished while the solar compass was, as quietly as the sunbeam that fell upon its lens (to give it power), establishing the boundary line coinciding with the true meridian. The iron deposits thus discovered are to-day the greatest iron producing mines in America, if not in the world. By this timely discovery of these iron deposits, and their development in connection with the coal mines of Pennsylvania and Ohio, America is now able to lead the world in the production of iron. The largest and most productive copper mine in the world (the Calumet & Hecla) was discovered, we are credibly informed, by the same means, viz., the solar compass, in the hands of a civil and mining engineer, who, while locating a highway, was directed to the vein, no outcrop being visible, on comparatively level ground, by the unusual deflection of the needle. While copper does not attract the magnet, the solar compass first discovered, in the upper peninsula of Michigan, that trap rocks did attract the needle; and that copper veins in conjunction with sedimentary and trap rocks, also attracted the magnetic needle, probably from galvanic currents along the line of junction.

Hence the discovery of the greatest copper producing mine in the world, by the use of the solar compass. It is believed by those best informed on the subject, that through the use of the solar compass the general development and prosperity of the country has been materially hastened and enhanced, and the surveying system very materially improved.

The inventor, during the time of perfecting and introducing his compass into the public surveys, instructed and fitted his five sons and other surveyors, so that they could share with him in the introduction of his instrument, and also, to meet the demand for such service by the government, his sons participating, more or less, in the improvement and perfection of the compass, as suggested by its use in the field. In order to have the compass constructed under his own eye and supervision, he established, with their assistance, his manufactory in Detroit, under the firm name of Burt & Bailey, and it is believed that here the compass reached its greatest perfection, but without reward pecuniarily. During the time the inventor and his sons were connected with the public surveys the price paid by the government for the surveys then made was altogether inadequate for the character of the work done, much of which was not required by instructions, but needed in this new field, and as an advance in the character of the public surveys. By close economy, hard work, early and late, and coarse fare, a very small saving over expenses was generally made, although it was often scarcely appreciable. The country was thickly wooded, swampy, hilly, and often broken and rocky, with tangled thickets to encounter, and so cold and snowy that nothing could be done in the winter, and all the work had to be done five or six hundred miles away from the source of supplies. The average price paid for this work was six dollars per mile, while the price now paid for a similar character of work averages twelve dollars per mile.

The Solar Compass was invented so early in the history of land legislation that the greater portion of the surveys have been made since it began to be used. It is estimated that when all the government surveys have been completed, it will have lent its aid in the survey of eighty per cent of the area of all the states and territories, or of over 1,500,000,000 acres.

Notwithstanding the fact that the Solar Compass has saved the government millions of dollars, and rendered our surveying system well nigh perfect, neither was the inventor in his life time, nor have his heirs, since his death, been able to obtain either a renewal of the patent, or a moderate sum as a small return for the priceless benefits received by the government as the fruits of the genius of the remarkable man of whom we write. Bills of relief have passed one branch or the other of congress several times, but have failed to become a law, although Hons. Lewis Cass, Alpheus Felch, D. C. Leach, O. D. Conger, J. A. Hubbell, and others did yeoman service in support thereof when in congress.

During 1855 Mr. Burt compiled and published a manual, called "A Key to the Solar Compass, and Surveyor's Companion," a highly valuable book, without which the Solar Compass is a deep mystery to, at least, the average surveyor.

Judge Burt labored earnestly and intelligently in an effort to improve nautical instruments so they would be as useful at sea as the Solar Compass is on the land. The result was that he invented the Equatorial Sextant. Lieutenant Maury, of the navy, ordered several for the use of the government. Some of these may be seen at the national observatory at Washington, and the naval academy at Annapolis. But he was cut down in the midst of his labors, before perfecting this instrument.

The Equatorial Sextant will show, without computation, but by simple reading off, the latitude, hour, angle, and azimuth, at any time of day, thus giving at once the position of a ship at sea, with the aid of a chronometer.

He died at his home in Detroit, August 18, 1858, as he had ever lived, an honest man, a christian, in the truest sense, and one whom the world will never forget, for his great inventions, and fidelity to every trust reposed in him. His son Alvin is deceased. Four sons are still living, viz., John, Austin, Wells and William, honored members of the several communities in which they respectively reside.

[From Detroit Free Press, Sunday, Dec. 6th, 1885.]

GOLDEN GREETINGS.

THE NORTHERN AND SOUTHERN PENINSULAS UNITE IN PAYING RESPECTS TO MR. AND MRS. JOHN BURT.

HAPPY REMINDERS OF OTHER DAYS ON THEIR FIFTIETH ANNIVERSARY.

Thursday evening Mr. and Mrs. John Burt were met by some 200 of their friends, ladies and gentlemen from this city and other cities, who gathered at the family residence, No. 1073 Woodward avenue, to celebrate the fiftieth anniversary of the wedding of Mr. and Mrs. Burt.

The aged couple had seats beneath an arch, which had been decorated with strikingly appropriate designs in ground pine and hemlock foliage, interspersed with flowers. Above the arch were two links in evergreens, surrounded by a gilt frame. In one link was the date "1835" in white flowers, while in the other was the date "1885" in yellow flowers. Between the two was a large, gilt bell, with sprays of flowers falling over it, and beneath this bell Mr. and Mrs. Burt received their guests. On either side was a draping of ground pine and hemlock foliage. To their left was a mantel which had a display at once unique and appropriate. Above the mantel was an oil portrait of Judge Wm. A. Burt, inventor of the solar compass. On one corner of the mantel was a solar compass, and on the opposite corner an equatorial sextant—also invented by Judge Burt.

In the center of the mantel was a vase made of blast furnace slag or cinder, filled with green foliage and immortelles—upon one side of the vase was a fine exhibit of gold from the Ropes' gold mine, sent by Mr. Julius Ropes, the discoverer of this, the first gold mine on Lake Superior, while upon the other side was a similar beautiful exhibit of gold bearing sugar quartz from the recently discovered vein on the property of the Lake Superior Iron Company. Flanking these gold quartz exhibits were characteristic samples of iron ore from the principal mines of the Marquette, Menominee, Felch and Agoogebie districts, brown sand stone from the Burt Free Stone Company's quarry, at Marquette, and copper from the great Calumet & Hecla lode—thus presenting at one view the leading industries of the region with which Mr. Burt's active life has been so long identified. About nine o'clock, Hon. C. L. Walker having announced to the assembled guests that there would now be a formal presentation of addresses and testimonials to Mr. and Mrs. Burt, and having requested them to be seated, the formalities of the evening began with an address by Rev. John Mathews, who showed how the evening about to be celebrated would prove a delightful memory and a fitting observance of a dual life, in which mutual confidence, hope and love were the main supports. Then came one of the chief events of the evening, the presentation of

THE MINING JOURNAL'S CONGRATULATIONS.

Hon. Edgar Weeks, who, at the age of 13, was in the employ of Mr. Burt as "printer's devil," presented a very interesting congratulatory address to Mr. Burt, from the Marquette Mining Journal, prefacing the presentation with a very pleasant reference to his boyhood experiences under the guidance of Mr. Burt.

Mr. Weeks said:

MR. BURT: It is my privilege to present to you and Mrs. Burt on this impressive occasion, an address, which I think expresses the deliberate sense of the enterprising and intelligent people of the upper peninsula. This is a duty which brings to me very pleasant personal recollections of thirty years ago, when I found myself, a lad of thirteen, employed by you in a printing office at Sault Ste. Marie, and afterward at Marquette.

All the years since, there has never been an opportunity for me to acknowledge the christian kindness you, Mr. Burt, displayed toward me, a boy trying to get on in the world at that early age. I have never had an opportunity to say to you how much I thank you and how kindly I have always felt toward you and yours for your kindness toward me at that time.

This address has been sent to me by the Marquette Mining Journal. The pleasant duty assigned to me this evening of presenting it to you, is probably due to the fact that, though comparatively a young man in years, I am one of the oldest, if not the oldest, living survivor of the pioneer journalists and printers of Lake Superior. I was there in 1855, at the opening of the Sault canal, and subsequently in 1856 and '57, at the Sault and at Marquette. The little village of those days has grown into the magnificent and flourishing city. Most of the leading men of that day have passed away, but to the foresight and enterprise of the men of that early period is due the astonishing growth of the upper peninsula in population and wealth.

The MINING JOURNAL, whose address of congratulation I am about to present to you, has grown with the growth of that country, and from an un-

