# TERMS:

82 50 six Months. Three Months,

> INVARIABLY IN ADVANCE. CITY ADVERTISEMENTS.

#### M. S. WOODCCCK. Attorney and Counselor at Law. CORVALLIS : : OREGON

OFFICE ON FIRST STREET, OPP. WOOD-COCK & BALDWIN'S Hardware store. Special attention given to Collections, Fore-closure of Mortgages, Real Estate cases, Probate and Road matters.
Will also buy and sell City Property and Farm Lands, on reasonab March 20, 1879.

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CORVALLIS, : : : ORIGON. DEFICE, Corner of Monroe and Second

#### J. W. RAYBURN, ATTORNEY AT LAW CORVALLIS, : : OREGON.

OFFICE—On Monroe street, between Second and

Special attention given to the Collection of Notes and Accounts. 16-1tf

### JAMES A. YANTIS, Attorney and Counselor at Law,

CORVALLIS, . . . OREGON. WILL PRACTICE IN ALL THE COURTS of the State. Special attention given to matters in Probate. Collections will receive

## DR F. A. VINCENT, DENTIST.

CORVALLIS - "REGON. OFFICE IN FISHER'S BRICK - OVER Max. Friendley's New Store. All the atest improvements. Everything new and complete.

All work warranted. Please give me a call.

15:3tf

### G. R. FARRA, M. D. PHYSICIAN AND SURGROY.

OFFICE-OVER GRAHAM & HAMILTON'S Drug Store, Corvallis, Oregon. 14-26tf

## J. R. BRYSON, ATTORNEY AT LAW

All business will receive prompt attention.

COLLECTIONS A SPECIALTY.

# Corvallis, July 14, 1879. NEW TIN SHOP

J. K. Webber, Pro.,

# MAIN St. - CORVALLIS.

STOVES AND TINWARE All Kinds.

All work warranted and at reduced rates. 12:13tf.

# W. C. GRAWFORD. -DEALER IN-

#### WATCHES, CLOCKS,

JEWELRY, SPECTACLES, SILVER WARE,

Musical Instruments &c Repairing done at the most reasonable rates, and all work warranted. Corvallis, Dec. 13, 1877.

GRAHAM, HAMILTON & CO.,

CORVALLIS . . . GREGON

- DEALERS IN-

# Drugs, Paints, MEDICINES. CHEMICALS, DYE STUFFS,

**GLASS** 

OILS,

AND

PUTIY.

PURE WINES AND LOUDES

-FOR MEDICINAL USE .-

And also the the very best assortment of

Lamps and Wall Paper

ever brought to this place.

AGENTS FOR THE

AVERILL CHEMAGAL PAINT,

SUPERIOR TO ANY OTHER.

or Physicians' P. escriptions (are-

# he Corvallis Gazette.

VOL. XVI.

CORVALLIS Holds stated Communications on Wednesday on or preceding each full moon. Brethren in good standing cordially invited to attend. By order W. M.

Livery, ... AND ...

SALE STABLE.



Main St., Corval is, Oregon,

SOL. KING, - Porpr.

OWNING BOTH BARNS I AM PREPARED ery line. Always ready for a drive,

GOOD TEAMS At Low Rates.

competent and obliging hostlers always ready to serve the public. REASONABLE CHARGES FOR HIRE.

My stables are first-class in every respect, and

Particular attention Paid to Boarding ELEGANT HEARSE, CARRIAGES AND

HACKS FOR FUNERALS Corvallis, Jan. 3, 1879.

# Woodcock & Baldwin

(Successors to J. R Bayley & Co,) KEEP CONSTANTLY ON HAND AT THE

Heavy and Shelf Hardware, IRON, STEEL,

TOOLS, STOVES, RANGES, ETC Manufactured and Home Made Tin and Copper Ware,

Pumps, Pipe, Etc. A good Tinner constantly on hand, and all Job Work neatly and quickly done. Also agents for Knapp, Burrell & Co., for the sale of the best and latest im-

FARM MACHINERY,

of all kinds, together with a full assort-ment of Agricultural Implements. Sole Agents for the celebrated ST. LGUIS CHARTER OAK ST**OVES** 

the BEST IN THE WORLD. Also the Norman Range, and many other patterns, in all sizes and styles. Particular attention paid to Farmers' wants, and the supplying extras for Farm Machinery, and all information as to such articles, furnished cheerfully, on applica-

No pains will be spared to furnish our customers with the best goods in market, in our line, and at the lowest prices. Our motto shall be, prompt and fair dealing with all. Call and examine our

fore going elsewhere. Satisfac tion guaranteed. WOOKCOCK & BALDWIN. Corvallis, May, 12, 1879.

# LANDS! FARMS! HOMES!

HAVE FARMS, (Improved and unimproved,) STORES and MILL PROPERTY very desirable, FOR SALE.

These lands are cheap. Also claims in unsurveyed tracts for sale.

Soldiers of the late rebellion who have, under he Soldiers' Homestead Act, located and made final proof on less than 160 acres, can dispose of the balance to me. Write (with stamps to prepay postage).

R. A. BENSELL,

Newport, Benton county, Oregon 16:2if

# ALLEN & WOODWARD. Druggists

and

Apothecaries, P. O. BUILDING, CORVALLIS, OREGON.

Have a complete stock of DRUGS, MEDICINES, PAINTS, OIL,

GLASS, LTC., LTC. School Pooks stationeny, &c.

We buy for Cash, and have choice of the FRESHEST and PUREST Drugs and Medicines the market affords. Prescriptions accurately prepared at half the usual rates. 2May16:18tf

# FRESH GOODS -AT THE-

BAZAR of FASHIONS Mrs. E. A. KNIGHT.

CORVALLIS, - - - OREGON. Has just received from San Francisco, the larg

Millinery Goods, Dress Trimmings, Etc. Ever brought to Corvallis, which will sell at prices that defy competition.

Agency for Mme, Demorest's reliable 25apr16:17tf

# CORVALLIS, OREGON, FRIDAY, SEPTEMBER 12, 1879. Corvallis Lodge No 14, F. & A. M.

Barnum Ledge No. 7, I. O. O. F. Meets on Tuesday evening of each week, in their hall, in Fisher's brick, second story. Mem-bers of the order in good standing invited to at-tend. By order of N. G.

# ROBERT N. BAKER.

FORMERLY OF ALBANY, WHERE HE has given his patrons perfect satisfaction, has determined to locate in Corvallis, where he hopes to be favored with a share of the public patronage. All work warranted, when made under his supervision. Repairing and cleaning promptly attended to.

Corvallis, Nov. 28, 1878.

15:48ft.

Fashionable Tailor,

JOHN S. BAKER, PRO. CORVALLIS. - OREGON.

HAVING BOUGHT THE ABOVE MARket and fixtures, and permanently located in Corvallis, I will keep constantly on hand the

BEEF, PORK, MUTTON AND VEAL. Especial attention to making extra Bologna ausage.

Being a practical butcher, with large experince in business, I flatter myself that I can give attisfaction to customers. Please call and give the a trial.

JOHN S. BAKER.

# Grain Storage!

me a trial.

# A Word to Farmers.

HAVING PURCHASED THE COMMODIous warehouse of Messrs. King and Bell, and thoroughly overhauled the same, I am now ready to receive grain for storage at the reduced Rate of 4 cts. per Bushel

I am also prepared to keep Extra, White Wheat, separate from other lots, thereby enabling me to SELL AT A PREMIUM. Also prepared

Highest Market Price. for wheat, and would most respectfully solicit a share of public patronage. T. J. BLAIR.

Corvallis, Aug. 1, 1878. 15:32tf

# H. E. HARRIS.

One door South of Graham & Hamilton's, CORVALLIS, . . OREGON. GROCERIES.

PROVISIONS, -AND-

Dry Goods Corvallis, Jan. 3, 1878.

DRAKE & GRANT. MERCHANT TAILORS.

WE HAVE JUST RECEIVED A LARGE Oxfordshire C section followed. They and well selected stock of Cloth, viz:

Vest of regiand Broad toths, rench assimeres, cotch Tweeds, and a merican suitings. Which we will make up to order in the most approved and tash onable styles. No pains will be stared in producing good fitting garments.

Parties wishing to purchase cloths and have them cut out, will do well to call and examine our steel.

DRAKE & GRANT our stock. DRAKE & GRANT.
Corvallis, April 17, 1879. 16:16tf

Boarding and Lodging.

Philomath, Benton Co . Oregon. GEORGE KISOR, RESPECTFULLY INFORMS THE TRAV-

eling public that he is now prepared and in readiness to keep such boarders as may choose to give him a call, either by the SING E MEAL, DAY, OR WEEK.

Is also prepared to furn sh horse feed. Liberal hare of public patronage solicited. Give us a all. GEORGE KISOR. Philomath, April 28, 1879.

ALBERT PYGALL. | WILLIAM IRWIN. PYGALL & IRWIN,

# City Trucks & Drays,

HAVING PURCHASED THE DRAYS AND Trucks lately owned by James Eglin, we are prepared and all kinds of City Hau ing. Delivering of

Wood, I te., Etc., in the city or country, at reasonable rates. Patronage solicited, and satisfaction guaranteed in all cases.

ALBERT PYGALL,
WILLIAM IRWIN.

Corvallis, Dec. 20, 1878. 3 C. MORELAND,

(CITY ATTORNEY.) ATTORNEY AT LAW, PORTLAND, - - OREGON.

OFFICE-Monastes' Brick, First street, between Morrison and Yamhill. 14:38tf THE STAR BARERY. HENRY WARRIOR, PROPRIETOR. Family Supply Store!

Groceries, Bread. Cakes,
Pies,
Candies,
Toys,
Etc.,

Corvallis, Jan. 1, 1877.

Firing on Horseback.

The last Friday of the Wimbledon meeting is always one of the most popular days for visitors, as it is fullest of practical lessons for the volunteers, apart from the mere mastery of accurate shooting. The Loyd, Lindsay and the Mappin prizes were instituted with the object of testing what calvary and in-fantry volunteers could no under conditions similar in many respects to those that would have to be encountered on active service. In the one, Yeoman mounted riflemen, or volunteer light horse, have to ride a distance of three-quarters of a mile, taking two flights of hurdles in the course, dismounting at two points, and, firing, each man five rounds, and the whole has to be done in ten minutes. In the other similar work has to be performed, only the distance to be covered is only a quarter of a mile, and the time allowed is five minutes. At the Loyd-Lindsay course yesterday after-noon a considerable number of spectators, on horseback, in carriages or drags and on foot, had gathered, and they evi-dently watched the proceedings with much the same kind of interest that would be taken by country folk in their local steeple-chases. For this competition thirteen sections had entered, and rarely indeed has the contest for the prize been closer or so distinguished by higher proficiency on the part of the teams engaged. It commenced soon after 3 o'clock, and for two hours and a half the spectators were delighted by a display of good riding, soldierly bearing and skillful markmanship under difficult circumstances. The Aryshire section was held to be in accordance with the condithe first to start, and they did the course in eight seconds less than the prescribed tions, and secondly, on the ground that time, but in their shooting there was evidence of hurry. The misses were frequent and the good hits very few. Then three men had dismounted to fire at one time, instead of only two. Both objections were overruled, and the Devon men were officially declared the winners, when the sections assembled to learn the result from Major Thompson.—London Daily News. July 26th. came the Dorset section, distinguished by the silver hussar braiding of their jackets, and sitting their horses as hunting men from the Blackmoor Vale should do. It was not the same section that had previously attained fame at

Wimbledon, and there was a want of smartness about the movements of the men, which proclaimed slight acquaintance with the requirements of such a competition. Their time was 11 minutes and 22 seconds, and in the forty rounds fired by the four men at 500 and 600 yards, they only scored 15 points alto-gether. From this five points had to be deducted from each half minute occupied over the time laid down. As the Dorsett stion had exceeded the by nearly a minute and a half, their net number of marks stood at home in admirable order in 9 minutes. shire G troop took more time, but scored

exactly nothing. Then came the Leicestershire D section, which like the Ayrshire, fired far too hastily. They made the best time of all, and came 37 seconds, but they only scored 18 marks between them. The Leicesteronly two points more, and of this number ten had to be deducted. Then came another section of the Avrshire regiment, which not only moved very leisurely, but also shot badly. The Leicestershire A section made both good time and good shooting, and came back from the firing points in almost perfect order, showing that they could not only ride like true followers of the Quorn and Cottesmore, but that they had acquired something of were slow in getting their aim, and did not seem to be making good practice at the target, but they came home well in line, and but for the misplaced enthusiasm of one of their number, who forgot that a cavalry soldier should never have a whip-hand, or at all events should never use it as such, their work would have been very well done. The Royal Bucks, mounted on good weight carriers, behaved in much more soldierly fashion They rode well and shot with precision They only took 9 minutes and 40 seconds to do the course, and got on the very re-

spectable number of 61 points before they left the targets. The Oxfordshire D troop looked very soldierly and moved well. After scoring a fair number of hits at the 500 yards range, they remounted very smartly, and getting back to the 600 yards firing point quickly and in good order got on the target at the in good order, got on the target at the first shot. Firing at regular intervals with deliberation, but without delay, they scored hit after hit. Presently however, the wind shifted, and seemed to puzzle them somewhat, as it blew the smoke straight up the range, obscuring the target and necessitating a hazardous delay. Directly the bugle sounded to delay. Directly the bugie sounded cease fire, however, they mounted with alacrity and came back in good order, alacrity and came back in good order, riding well; and, although one of the horses hit the last flight of hurdles rather hard, their line was never broken rather hard, their line was never broken until the post had been reached. The Warwickshire second section went down the course in dashing style, sitting their horses in true soldierly manner. Their shooting at the first range was rapid, and appeared somewhat wild. At 600 yards they were equally quick in getting to work, but scarcely more successful in settling to their aim. Then they tried what slower shooting would do, and got in several hits, but at the sacrifice of much time, which they endeavored to

much time, which they endeavored to make up afterward, with the result that they came back a little raggedly, one or two of them using their hands and heels

almost in Indian style. At firing they did not make so much progress either in time or points, and the limits of the min-utes had been passed long before the last round was fired. As they were com-

ing home the inevitable dog crossed the course, two of the horses shying, swerved and carromed against the others. For a moment it looked as if all must come to grief, but fortunately they kept their such statements as I have been able to grief, but fortunately they kept their seats and cleared the hurdles without any mishap. All three sections had fired with Wesley-Richards carbines, but the last to start, the Royal First Devon Yeomanry, carried their short Sniders slung across their backs, according to the fashion of the Indian irregulars. Smart and soldierly in their scarlet uniforms, with royal blue facings, they proved of which I have obtained possession, is worthy of the reputation that was won along ago by their countrymen of the to Heaven for vengeance; but ere that Devon mounted rifles. They cleared the comes let the rulers of civilized Europe hurdles well, but, unaccustomed to the emeditate this chapter of human misery course, they went too fast, and one horse, and woe, and let them bid Russia stay course, they went too fast, and one horse, having broken a rein, carried his rider far beyond the first firing point before ing the second fortnight of last month a he could be pulled up. At 500 yards they got on the target once, and steadily

vards they did not do so well, but still they finished with a more brilliant score than has been made by any of the culture of competitors—a score that could bear a reduction of fifteen points for excess of time and yet win. Admirably they rode back as they had started, erect in the saddle and soldierly in bearing, amid loud cheers from the spectators, who had hailed the ring of every hit on the target with an encouraging shout of "Bravo, each. The rule observed was that such Devon!" Protests were lodged against among them as showed any disposition this team, first, because of the rifles they used, which the council very properly

Roger Bacon. But the great light in science during all those ages, both for England and the rest of the world, was Roger Bacon, who,born of the Suez Canal, the Red Sea and the in 1214, was in his cradle in Somersetshire when the barons obtained from King John his signature to Magna Charta. He belonged to a rich family, sought knowledge from childhood, and avoided the strife of day. He studied at Oxford and Paris, and the death of his father may have placed his share of the paternal estate in his hands. He spared no cost for instructors and transcribers, books and experiments; mastered not only Latin thoroughly, but also Hebrew and Greek, which not more than five men in England then understood grammatically although there were more who could loosely read and speak those tongues. He was made doctor in paris, and had the degree confirmed in his own University of Oxford. Then he withdrew entirely from the civil strife that was arising, and joined the house of the Franciscans in Oxford, having spent all his time in the Oxford, having spent all his time in the world and £2000 of money in the search of knowledge. Roger Bacon's family committed itself to the King's side in the civil war of Henry III.'s greed, his corruption of Justice, and violation of the defined rights of his subjects brought upon him. The success of the barons ruined Bacon's family, and sent his mother, brothers and whole kindred into exile. Meanwhile the philosopher as one of the Meanwhile the philosopher, as one of the Oxford Franciscans, had joined an order which prided itself in the checks put by it on the vanity of learning. But in spite of their self-denials, the Franciscans at Oxford and elsewhere, included many learned men, who by the daily habit of their minds, were impelled to give to scholarship some practical direction. They were already beginning to supply the men who raised the character of teaching at the University of Oxford till it rivalled that of Paris. Friar Bacon was among the earliest of these teachers; so among the earliest of these teachers; so was Friar Bungay, who lives with him in the Russian authorities hoped to deceive popular tradition. Roger Bacon saw how the clergy were entangled in barren subtleties of a logic far parted from all natural laws out of which it sprang. He believed that the use of all his knowledge, if he could but make free use of it, would be to show how strength and peace were to be given to the Church, And then the Pope, who had been told of his rare acquirements and his philosophic mind, bade Roger Bacon, disregarding any rule of his order to the contrary, write for him what was in his mind. Within blooded cruelty of the Russian authorities towards the Nihilist convicts. What precedes refers only to those who are sentenced to transportation; but the fate of the Nihilist prisoners at home is no his mind were first principles of a true and faithful philosophy. But to commit to parchment all that he had been pining to say would cost him £60 in materials, less horrible, and the exclamation of the Russian Captain that if his wards died from the effects of the atrocious treattranscribers, necessary references and ex-periments. He was a Franciscan, vowed ment to which they were subject, it would be so much the better for all parto poverty, and the Pope had sent no money with the command to write. Bacon's mother and exiled brothers had spent all they were worth upon their ransoms. Poor friends furnished the necessary money, some of them pawning goods, upon the understanding that their loans would be made known to His Holiness. There was a difficulty between the philosopher and his immediate supe-riors, because the Pope's demand was private, and only a relief to. Bacon's private conscience. His immediate rulers had received no orders to relax the discipline which deprived the Franciscans of the luxury of pen and ink. But obstacles were overcome; and then Roger Bacon produced within a year and a half 1268-9, his Opus Majus ("Greater Work"), which now forms a large, closely-printed folio; his Opus Minus ("Lesser Work"), which was sent after the Opus Majus to Pope Clement to recapitulate its arguments and strengthen some of its parts.—Henry Morley's Manual of English Literature. cipline which deprived the Franciscans

NO. 37.

Russian Prisoners. In communicating the following par-ticulars respecting the abominable treat-ment to which the Russian Nihilist prisoners are subject, I wish to impress upon your readers that, bent upon derive from unbiased and trustworthy persons—eye-witnesses themselves of the orrors revealed to me. Though my hand quivers with indignation as I pen this dispatch, not one charge against the Russion authorities shall be intensified by any emphasis of my own. The appalling evidence of Russian barbarity, of which I have obtained possession, is the course of her revolting deeds. Durperson whose testimony is above sus-4,000 tons, freshly painted white. On going below deck, he found that on cages were of different sizes, and con-tained from four to twenty convicts to be unruly were confined in the smaller cages so as to be more easily watched. The gentleman who visited the ship estimates the number of these wretched people at 750, most of whom had come by rail from the interior, heavily chained

together by small groups. They were to keep their chains during the journey, and my informant says the sinister noise they produced was distinctly audible long ere he reached the ship. Unable to control his feelings, he observed to the officer in command that his closelypacked cargo, chained together in a place where there was absolutely no ven-Indian Ocean, to which the Russian officer cynically replied: "Well, so much the better for all parties if they do not." He accompanied this astoundat another place on her outward voyage, and on competent authority it was ascertained that not one-third of the unfortunate prisoners on board could possibly reach their destination alive. But my information is not confined to this one instance. The Nijni Novrogod, for-merly known as the Saxonia of the Hamburg and New York line of steamers, but since purchased for the Russian volunteer fleet, arrived at Port Said under Russian colors and manned by Russian sailors, at the end of last month. She had 590 convicts on board, for the most part Nihilists condemned to be trans-ported to the Island of Saghalien. The Suez Canal Company raised the question as to whether this ship, which was known to have sailed under merchant colors on her last journey from Mar-seilles to Odessa, and which belongs neither to Russian Government nor to the Russian transport service, but which was freighted for the volunteer fleet, should be considered as a ship of war. The discussion resulted in the Nijni Novrogod being for twenty-two mortal bours, because the Suez Canal Company. But this is not all. The same vessel is to perform the same voyage with a similar cargo four times in the course of the present are engaged in the same traffic. All the ghastly tales that were told during the late war are surpassed by the cold-blooded cruelty of the Russian

ties, might be appropriately repeated by the director of every jail in the Russian Empire.—Vienna Dispatch to London Telegraph. ANECDOTE OF AN OLD RIVER GAMBLER .-One time he was accused of swindling, the charge being made in the heat of play by a man from whom Watt's accomplice had just won \$10,000. "Is that your opinion?" he quietly asked. "Yes, sir that's what I think," roared the loser "you swindled me, and I stigmatized you as a scoundrel." The hour was late, and only the watchman and a party engaged in playing heard the charge, but all of them drew-back and held their breath, for they were sure Jack would take a life to wipe out the insult. It is said that he has done that thing. "I will give you \$5000 right here if you will not make that opinion any further public," said Watts, drawing forth his pocket-book. "No, sir, I do not want the money; you cannot buy my silence with money." Then Watts

# Corvallis Gazette.

RATES OF ADVERTISING. | 1 W. | 1 M. | 8 M. | 6 M. | 1 YR Inch | 100 | 300 | 500 | 800 | 1200 " | 200 | 500 | 700 | 1200 | 1800 1 8 00 | 8 00 | 10 00 | 16 00 | 22 00 | 4 00 | 7 00 | 18 00 | 18 00 | 20 00 34 Col. 1 6 00 | 9 00 | 15 00 | 20 00 | 85 00 5 " | 7 50 | 12 00 | 18 00 | 35 00 | 48 00 5 " | 10 00 | 15 00 | 25 00 | 40 00 | 60 00 " | 15 00 | 20 00 | 49 00 | 80 00 | 100 0 Notices in Local Column, 20 cents per line, each insertion.

Transient advertisements, per square of 12 lines, Nonpareli measure, 25 50 for first, and 31 for each subsequent insertion—in ADVANCE.

Legal advertisements charged as transient, and must be paid for upon expiration. No charge for publisher's amdavit of publication. Yearly advertisements on liberal terms. Professional Cards, (I square) \$12 per annum. All notices and advertisements intended for publication should be handed in by noon on Wednesday.

#### Star Showers.

Meteoric astronomy now takes rank as distinctive branch of astronomical science. Not forty years have elapsed since it was ascertained that star showers are periodical. Even then and for many years after it was supposed there were but two, called the August and November showers. Now, not less than 100 have been detected, and constantly others are being added to the list. The accounts of the showers that occurred in angient the showers that occurred in ancient times came down to us clothed such in extravagant language that, until the great star shower of November 13,1833, astrono-mers were loath to believe them. Now they know not only the cause, but are able to predict their reoccurrence with almost as much exactness as eclipses, and the popular mind observes these displays with equanimity and delight instead of fear and alarm, or thinking the day of judgment has come. Science has dis-armed not only them but eclipses and

comets as well, of their terrors.

All know what a shooting star looks like, but no living man can tell what it really is, for not one has ever been known to reach the earth. Those heavy, stony and still more weighty metallic masses, called meteorlites, meteoric stones, etc., which occasionally fall to the earth from the celestial regions, which the one that recently fell in Iowa was a remarkable example, belong to another class of objects entirely, the origin of which man knows

nothing. A shooting star is only visible while undergoing the process of combustion, which lasts from one to three seconds, eldom longer. Previous to this they exist in the dark, probably solid condition, not much if any larger than peas, too small to be seen in daylight and in the night, being in the earth's shadow, are eclipsed and consequently visible. Only while being burned they are visible to us, as they shine by their own light.

Each meteoroid moves in an orbid, revolving around the sun with as much

volving around the sun with as much regularity as the larger planets. In fact, each is in every sense of the word a planet, obeying strictly the laws of gravitation and planetary motion. All space is filled with them; they are as numerous as the sand. The earth and they in their journey around the sun encounter each other; the casts he is estreation draws other; the earth, by its attraction, draws them toward it, but to reach it they must pass through the atmosphere, which one is not liable to do. Only meteoric stones are able to reach the earth, and they have their surfaces blackened, and converted to scoria by their terrible heat engendered by the friction with the atmosphere

and by arrested motion. Shooting stars move in all directions velocities probably equal to the earth's nearly 19 miles a second. One moving retrograde, therefore (from east to west), would plunge into the atmosphere at a relative velocity of 38 miles a second, and if allowance be made for accelerated motion, caused by the earth's attraction, probably double that, or 75 miles a second. The encounter is fearful, and but for the atmost beginning, which acts as a cushion, the effect would be disastrous, for not less than 800,000 would rain upon

upon the earth every day.

The source from which these meteoroids come is comets, especially from their tails. The tail of the great comet in 1811 was 150,000,000 in length and 15,000,000 in diameter. It is improbable in the highest degree that the comet could gather its tail to itself again. It is left behind, forming a ring, which in time may be-come continuous. Another comet comes and it does the same, and during the ages which are past this process has been go-ing on till the inter-planetary spaces are filled with not only meteoroids, but something still more marvelous.

In about three thousand years that great comet will return again and repeat the process, forming part of another ring, or, adding to the first, depending on circumstances which need not be considered here. Whenever the earth, in its usual journey, passes through any ring made by some comet, no man knews when we get a star shower. The four most notable ones in our times take place at the following dates, namely, on the mornings of August 11th and November 14th, and the evenings of November 24th and 27th. The last two are caused by the earth passing through the track of meteoroids left be-hind by the fragments of Bida's coment, which divided in two parts in 1846. In this way meteoric rings are formed, of which the solar system is filled, but none are visible to us, except those the earth passes through. By some such process was the August ring formed, which the earth passed diagonally through on the evening of the 10th and morning of the

14th of the present month.

The first August shower mentioned in history occurred on July 25th, A, D., 811, and has appeared with unfailing regularity down to our own time, except a slight break of 83 years between 841 and 924, and another and much greater one of 310 years between 933 and 1243, owing probably to breaks in the ring, or which is more likely, to a failure to record them. The period of the above comet is about 123 years, and it will therefore make its next appearance about the year 1985.

next appearance about the year 1985.

The eccentricity of the August ring is very great, its perihilion distance being equal to that of the earth, and its aphelion distance being far beyond the orbit of Neptune, making the circumference of the ring more than 11,000,000,000 miles, and as the earth is ten cays in passing the control of the ring the transfer of the ring the state of the ring the rin through it, its thickness must be at least 16,000,000 miles.—Dr. Lewis Swift in Rochster Express.

Plowing by Electricity.—At a recent meeting of the Paris Academy of Sciences, M. Tresca gave an account of some they came back a little raggedly, one of two of them using their hands and heels a little more vigorously than a cavalry martinet would be likely to approve of.

The Warwickshire first section was admirably mounted, and the men kept their dressing well as they topped the hurdles in good hunting style. They got through their twenty rounds at 500 yards, and a cavalry discovery every every every every quick in remounting, and though they came back at racing speed they kept their dressing well to the end. The Worcestershire men when they got the command, "Gallop march," went away as if each work experiment, and or they immediately. The above mand, "Gallop march," went away as if each work experiment, and or the mean and an experiments and street was a side and they immediately. The above quantity is for soda-water bottles; wine bottles will require double the quantity.