

### PLANT GROWTH BY ELECTRIC LIGHT.

Professor Balley's Experiments with Electie Light on Leaf Plants, Spinach, Etc. At the Cornell experiment station, Ithaca, N. Y., in the winter of 1889-00, a forcing house was divided into two com-



NORMAL SPINACE PLANT.

partments, and one was treated to ordinary conditions-sunlight by day and darkness by night-and the other sunlight by day and electric light by night. In this house numerous experiments were made to note the effect of the electrie light on plant growth.

In a report made in the American Garden, to which thanks are due for the cuts here presented, it is told that the stringy! Who can general effect of the naked electric light greater the acceleration. This tendency was particularly marked in the leaf plants-endive, spinach, cress and lettuce,

edible leaves were formed, and near the light the leaves were small and curled. This is well illustrated in spinach, Figs. 1 and 2. The cuts, which are made to the same scale, show Round Dutch spinach when seven weeks old. Fig. 1 shows

the light house

These and similar experiments justified the conclusions that while the naked electric light has a damaging influence upon the plants near it, electric light promotes assimilation; it often hastens growth and maturity; it is capable of producing natural flavors and colors in fruits; it often intensifies colors of flowers and sometimes increases the production of flowers, and that periods of dark ness are not necessary to the growth and development of plants. Professor Bailey believes it is only necessary to overcome the difficulties, the chief of which are the injurious influences upon plants near the light; the too rapid hastening of maturity in some; and, in short, the whole series of practical adjustments of conditions to individual circumstances to render electro-horticulture a success. Deherain, a French experimenter, says that the injurious rays from the electric light are greatly modified by a transparent glass. Professor Bailey's experiments with an electric lamp, protected by an ordinary white opal globe, gave results much less marked than that of the naked light; in a word, the injurious effects were lessened by the use of the globe. Lettuce was greatly benefited

### OXEN IN HARNESS.

An Illustrated Account of the Manner Oxen Are Worked on Some Farms.

On many Vermont farms most of the work is still done by oxen. One fre- chance to get a nice home. quently sees a farmer with a yoke of , oxen and one horse hitched ahead. Many of these oxen are high grade Devons, not particularly heavy, but active, fast walkers and very intelligent. Dishorning is not practiced much in New England states, particularly with working oxen, as the horns are needed in keeping the big ox yokes in place. They are cut off at the ends and little brass balls are screwed on. There are hundreds of just such oxen to be found on the hill farms New England. In Maine and parts of New Hampshire more Herefords are for homes on reasonable terms to pur-used; they are heavier than the Devons, chasers wishing to locate in Oregon used; they are heavier than the Devons, with better necks and shoulders, but not so active and smart. These working oxen are finally sold for beef. The farmers claim that they make sweeter and

jucier beef than the lazy, pampered animals, which do nothing but eat, sleep and grow fat. These working oxen show a greater propor-tion of lean meat. A Does their exermake the beef tough and

30 AN OX COLLAR.

0

tell about this? was to greatly hasten maturity, and the The famous "Roast Beef of Old Engnearer the plants grew to the light the land," which has been made a theme for poets, orators and statesmen, came in a great measure from oxen which did the farm work while they were growing into The plants "ran to seed" before beef. Nobody praises the present beef as the old beef was praised!

A Manitoba farmer writes as follows to Rural New Yorker: "My team con-taits of three steers, which in this com-try are worked in harness. My collars (Call on or address) WHITE REMAR. try are worked in harness. My collars are made of poplar, with a stout hame strap at the bottom and a piece of wood across the top, hinged in front of the hame, on #-inch carriage bolts; I use good leather lines and bits in their mouths. This summer they worked on the mower and rake and cut sixteen acres with a heavy binder on rough ground. I believe this team is better for any farmer than horses which are- not strictly first class. Some may say that cattle were not intended for bits, but if they look inside the mouth of a steer they will learn better. Mine can eat, drink and ruminate quite well. Of course I feed grain when working hard, but when idle they are cheaply kept." A picture of the collar is shown at Fig. 1. This is a front view, A A representing mortised holes for the traces, keyed in front.



BARNESS FOR OXEN. Fig. 2 shows the head and shoulders of an ox with the collar, traces and lines in place. Breeching and "belly bands" are never used. The trace should draw from Doors, Windows and Blinds a point about half way between the points of the shoulder. We do not know what breeds of steers make the best "horses," but suppose the lighter, active animals, like Jerseys or Devons, are best.

Professor Smith, of the New Jersey a bulletin issued that his experiments

### Home for Sale.

I have a house and two lots with good barn at the head of Seventh street; city water service. Will sell cheap, Fine

Another house and two lots at the corner of ninth and Monroe will be sold on easy terms. Excellent location.

Very desirable property. Also a business lot on Seventh street

for sale For further information apply to E

P. ELLIOTT, Viola postoffice.

#### Central Addition.

Special attention is called to the beautiful, sightly and bealthy locations Splendid water and other attrac City. tions in Central Addition. Fine suburban property in tracts of five chased for the same money elsewhere. acres or more, one mile and a quarter from town. Several small but valuable farms for sale cheap and on easy terms. Apply to L. R. JANNEY With W. Cary Johnson,

Fun, Fish.-At Humphrey's fish per yard. market all kinds of fresh and salt water fish, crabs, lobsters and oysters. Live

and dressed chickens. Free delivery to all parts of the city C. O. T. Williams is now doing business for himself at the old stand next

door to Caufield & Huntley's drug store.

### W. A.WHITE F.F. WHITE. WHITE BROTHERS.

Practical Architects & Builders Oregon City, Ogt

## DR. L. WHITE.



G. H. BESTOW. Cor Opp. the Congregational Church

# W. S. MAPLE,

Having one of the best shoers in the state in my employ, I make



is complete, and our shoes are noted to wear longer than those pur-



are stronger and better than those sold at most stores for 6c. and 7c.

Come and bring your 5 gallon can which we will fill with the

Best Pearl Oil for Only 65 Cents.

We do just as we promise and can undoubtedly save you money in all purchases.

### HAMILTON & WASHBURN.



### Society Directory.

OREGON CITY BOARD OF TRADE. Meets at Court House on Second Monday in

Meets at Court Honse on Second Monday in each month. Visitors welcome. F. E. DONALDBON, HARVEY E. CROSS, Beerstary, President. CANEY BOAED OF TRADE. Meets at English Hall, Canby, on first and third Friday of each month. Visitors welcome. S. J. GARRING, Sec. W.M. KNIGHT, Pres. MULTNOMAH LODGE, NO. 1, A. F. & A. M. Holds its regular communications on first and third Saturdays of each month at 7.20 F. K. Brethren in good standing are invited to attend. J. T. F. RYAN, Secretary, OREGON LODGE, NO. 2, 100, O. F. Meets every Thursday even...s at 7.30 o chock K. M. In the Odd Fellows' Hall, Main street, Members of the Order are invited to attend. By Order of W. A. Melleton, N. G. TROK, Frank, Secretary, TROK Frank, Secretary, TALLE ENCAMPMENT, NO. 4, 10, O. F.

FALLS ENCAMPMENT, No. 4, L. O. G. F. Meets first and third Tuesdays of each month, at Odd Fellows hall. Members and visibing patriarchs, cordially invited to attend. L. R. JANNEY, J. W. O'CONNELL Scribe. Chief Patriarch.

Bethe. Chief Patriarch. OSWEGO LOLOGE NO 35, 1, 0, 0, F Meets at Odd Fellow's hall, Oswego, every Saturday evening. Visiting brethren made welcome. J. F. HERRY, Sec. MEADE POST, No. 2, G. A. R. DEPARTMENT OF OREGON. Meets first Monday of each month, st K. of P. Hall, Oregou City. Visiting comrades made welcome.

GILMAN PARKER Commander.

GEN. CROOK POST, No. 22 G. A. R., De art-ment of Oregon.

Meets in school house at Needy on first Sat-triday in each mouth at 2 o'clock p m. All omrades made welcome Jacon Spourz, J. Kakeraner, Adjt. (commander.

PIG IRON LODGE NO. 125, A. O. U. W. Meets every Thursday evening at Odd Fellows hall. Oswego. Visiting brethren siways wel-come. J. U. Cawrseit, R. STRAUSS, Recorder M. W. R. STRAUSS, Recorder

Mol.Al.A LODGE, No. 114, A. O. U. W Meets second and Fourth Saturday in each month, at Adams hall. Visiting members made welcome. O. W. Romarss, M. W. N. M. MOODY, Sec.

TUALITIN GRANGE, NO. 111, P. of H. Meets last Saturday of each mouth at their all in Wilsonville. R. B. RESTY, Miss BEDA BHARP, Sec'y. Master.

WARNER GRANGE, No. 117, P. of H. Meet fourth Saturday of each month, at their hall in New Era. C. C. Williams, Master Miss Maggie Brown, See'y

BUTTE CREEK GRANGE, No. 82, P. of B. Meets at their ball in Marquam, second Sat-urday in each month at 19 a. m. Visiting members always welcome. J. E. JACK, Secretary J. R. WHITE, Secretary Master.

MOLALLA GRANGE, NO. 40, P. of H. Meets at their hall at Wright's Bridge on the second Saturday of each month at 19 a. m. Fellow members made welcame. BEURAS WRIGHT, Master. N. H. DANNALL, Sec.

GAVEL LODGE, NO. 55, A O. U. W. Meets second and third Saturday evenings at Knight'st hall. Canby. Visiting brothers made

W S GRIBBLE. Recordsor. O L BARLOW Musterworkman

CLACKAMAS LODGE, No. 57, A O. U W. Meets first and third Monday in each month, at Straight's Hall Visiting brenkern welcome. H. S. GIRSON. L. D. JONES. Bec. M. W.

FALLS CITY LODGE OF A. O. U. W.

Meeta every second and fourth Friday even g of each month in Odd Fellows' building. All sojourning brethren cordially invited to at-tend. F. T. BakLOW, M. W., GEO CALIFF, Recorder.

ACHILLES LODGE, NO. 18, K OF P. Meets every Friday night at the K. of P. hall. Visiting Knights invited.

ISAAC AUKERMAN, C. C. J. E. RNODES, K. of R. and S.

ST. JOHN'S BRANCH, NO. 647, C. K. of A. Meets every Tuesday evening at their hall corner Main and renth Streets, Oregon Ulty. Matt. JUSTIN, Sec'y. T. W. SULLIYAN, Pres

NEW ERA W.C. T.U. Meets first Saturday in each month at their hall in New Era. Friends of the cause are in-vited to be present. Mas. Carry Jourson, Mas. Eastman. President.

CANRY LODOE, NO 564.1 O. G. T. Meets first and third Saturday evening at Knight's hall Canby. Visiting members always made welcome. H. C. GILMORE, W. C. T. MILLARD LEE, Sec

MEADE BELIEF CORPS, No. 18. DEPART-MENT OF OREGON.

Mrs. M. M. Charman, President Mrs. F. L. Cochrane, Treasurer, Mrs. J. B. Harding, Scoretary, Meets on first and third Fridays of each month in K. of P. Hall, Members of corps from abroad, cordially welcomed.



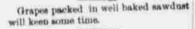
old, Fig. 1 shows an average plant from the dark or normal house and 3 a 1 Fig. 2 one from

within seven foet (Grown with naked elecof the lamp.

by the electric lights.

The Rose Bag.

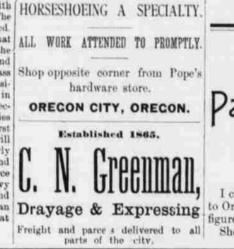
agricultural experiment station, tells in Blacksmithing and Repairing. with hot water proved satisfactory. Heated to 125 degs, or higher the beetles



### Horses of Various Nationa.

Every nation has its prejudices in fathe best in the world; they get educated sure that the Shire is the great model Belgium every one from peasant to the king and queen believe that the Belgian draft horse is best of all breeds, while the Frenchmen think there is no good finds much to admire in each of these breeds, which are being so extensively all .- Western Agriculturist.

were instantly killed, but great difficulty was found in reaching the insects with a sufficiently high temperature. The bagging of grapes is highly recommended vor of the horses of their own country as The author suggests in conclusion that the farmer should, first, prevent the up to that standard type. In Scotland breeding of the insects on his own land they think the Clydesdale the best draft horse, while the English are equally as and keeping as little light land as possiand keeping as little light land as possible in sod, while thorough cultivation in draft horse for the world. Across in May will destroy many of the puper; second, plant a few rows of blackberries around the vineyards to attract the first hordes-a few rose bushes or spirmas will answer the same purpose; third, use early draft horses outside of France. America or late blooming varieties of grapes and stimulate the vines by fertilizers to force the blossoms, and by inducing a heavy imported and crossed upon our native bloom get a surplus which will stand mares and from which the American some thinning by insects. Keep a man draft horse is being evolved-the best of with a collector constantly at work at least once a day for three weeks.



ANDERSON WALKER. PainterandHouseDecorator PAPER-HANGING AND KALSOMINING.

Drayage & Expressing to Oregon City, and will sell at Portland prices. Let me give you figures on your work.

RIS

Shop on Seventh street, near Center.

COLUMBIA HOOK AND LADDER CO. Meets first Friday of each month at Fountain engine house. CHAS ATHEY, Pres. C B. PILLOW, See'y. CHAS BITZER, F'rm

FOUNTAIN HOSE CO., No. 1 Regular moeting, second Wednesday in each month at engine house, cast side Main street, between Seventh and Eighth. I ACKERMAN, Secy. LANCE GARDNER, Pres. ED. NEWTON, Foreman.

CATARACT HOSE CO. No. 2. Meets second Tuesday of each month at Cat-ract Engine house, W. H. Howett, Pres. G. H. BESTOW, Secy J. W. O'CONSELL, Frn. SONS OF VETERANS. E. D. Baker Camp, No. 15, meets every first and third Thursday evening of each month C.A. HERMANN, Jr., Capt. WARD B. LAWTON, 1st Libout. C.F. BUCKLES, 25 Libout.

OFFICERS. J. W. Ganong, F. S Kelley, L. L. Pickens, Captain First Lieutenant. Second Lieutenant.

FROM REFIRING BARGAINS. BARGAINS. BARCAINS. GREAT NEWS AND NO HUMBUG

Mayer & Ackerman are Going to Sell their Entire stock of Merchandise AND FIXTURES, REGARDLESS OF COST, FOR CASH ONLY.

N. B.---PLEASE CALL EARLY TO AVOID THE RUSH.

MAYER & ACKERMAN.