MATTERS OF INTEREST TO AGRICULTURISTS.

Some Up-to-date Hints About Cultivation of the Soil and Tields Thereof -Horticulture, Viticulture and Flori-



OULTRY houses are very slim affairs, sometimes; not that they are built regardless of the comfort of the fowls, but because the large majority of poultrymen are unwilling to expend any more money on the poul-

is possible, says a try house than writer in Poultry Keeper. They aim to get the most house for the least money, and they succeed in getting the least number of eggs at the greatest outlay of food. Take the cold days of winter under consideration, and keep in view the fact that not one poultry house is given a coating of lath and plaster, which is alone suffi-cient evidence that the cold air can come in through a hundred little, unseen openings, yet the first thing that many will do is to ventilate such a ouse. There is a class which are boring under the impression that they must give the hens plenty of fresh air in winter. Let them experiment by living in an unplastered house, and they will learn a valuable lesson on keeping out the cold. Fresh air is in-Igorating, and also a valuable adjunct thrift and health, but the first thing learn is whether there is already a sufficiency or deficiency. Go into the poultry-house on a cold, windy night, ight a candle and watch the flame. Alhough the doors and windows may be ghtly closed, and to all appearances he house may be "air-tight," yet the ame of the candle will flicker if the find is high, provided, as stated, that se house is not plastered, which is evince that the air comes in from somewhere, and yet a thorough search may not disclose any openings by which the ir can enter. A poultry-house that is t clean and in good condition will or no obstacles to the fowls in the orm of impure air. It is only when the use becomes filthy that odors are noable and ventilation is required. No centilation need be given at night. The

ors and windows may be opened dur-

the day, but only when the weather

y, as dampness is injurious to poul-

Hundreds of fowls die every year

, and this should not happen.

e are but few poultry-houses built

are not self-ventilating, even when

Ilt with the best of care.

too much cold air given for venti-

Improving the Smith. An editorial in London Live Stock Journal says: Persistent protest, for ag series of years, by modern vetinary authorities against excessive of the knife in preparing the horse's for the shoe has not been witheffect on the majority of farriers. i, in some instances the lessons th have been over-applied and too pulously followed. The shoeingh of the day sometimes errs in opposite direction to that of which forefathers were guilty. He occanally uses the knife too little inead of too much, the revolt against he implement being carried to an exreme point. There are conditions of the foot when the knife should be freely d in removing abnormal growth to make a perfectly level bearing surface, while on no account should the sole be hollowed out or the frog be cut down, was the common practice of old. It satisfactory to learn that the judges of shoeing competitions at our annual cricultural shows are unanimously of inion that great improvement has taken place of late years in the general workmanship of the urban and rural noeing-smiths. Much of this is due to the advance of education amongst he class, and doubtless also not a little credit should be attributed to the system of registration of competent and skillful workmen instituted by the

Papering the poultry-house is a meth of keeping it warm in winter at nall expense. The work may be easily ne, especially if the boards on the side of the house are reasonably mooth. All kinds of paper may be d, but it would be better to employ avy felt or building paper, as that uld require less work in putting on. spapers would requre so much ndling and work that the job might t too much patience. The means fastening the paper to the boards paste. After one layer of paper is it will be easier to put on another. a smooth surface is thus furnished. all up the cracks and keep out the The great difficulty will be that of the houses are so irregularly that they are difficult to paper. such ones a few boards may be ed on in such a way that they will e a surface for the pasting of the

The right to attach the letters "R.S.S."

mith has reason to be proud.

sted by an exchange. It is said to see of cloth over the cow's back at ilking time. The cloth can be made act a mark, will the Berkshire sale at this place next Wednesday reach it? enough to cover the body very

FARM AND GARDEN, thoroughly, falling down behind over her tail, so that that member cannot be switched into the face of the milker.

> We cannot too severely condemn the use of preservatives in butter making. The dairyman or farmer has no right to toy with the health of the consumers of his product. It may be that adults will not be greatly harmed by the drugs but infants and invalids are the ones most in danger. It is desirable that we have some care for the welfare of others. Every state that has a dairy and food commission should also have laws preventing the sale and use of preservatives containing anything deleterious to the health. We do not believe that any other kind of a preservative can be made, for the said preservative must needs be destructive to all vegetable growth, and must exert a corresponding effect on the human system, though to a less degree.

In the report of Commissioner Boardman, of Iowa, 525 creameries reported 52,204 patrons. This is a small army. There is no reason why such men in the different states should not be brought closer together. This would make it possible to bring about a more just condition of affairs. The principal cause of farmers not being able to resist trusts and impostures is that the masses are in such a disorganized condition that there can be no consensus of action. The day that the creamerymen and dairymen form a compact organization, that day fraud in dairy products will cease, and commercial houses, whether sellers of salt or buyers of butter, will find it no longer to their interests to deal otherwise than honestly.

The Pennsylvania station has been considering the question of spraying corn fields to kill the army worm. It has been asked if there is danger that the corn thus sprayed will prove dangerous to stock. There are no positive data from which conclusions may be drawn. But the station believes that if the spraying is done with a weak solution and a month before the corn is cut for fodder there cannot possibly remain on the corn enough of the poison to do harm. The proportion for spraying is one pound of paris green to 150 to 200 gallons of water.

Useful Poultry House.

The barrel poultry house (Fig. 1) is largely used by cottag rs in England, and makes a capital house for a small lot of birds, says Australasian. Any cracks or crevices should be filled up with clay or putty. The inside should have a good coating of lime, in which some carbolic acid has been mixed, and



the outside should be well tarred or painted. When perfectly dry it should be placed on bricks or blocks of wood, so as to raise it a few inches from the ground.

The other sketch (Fig. 2) represents a more elaborate house, which can be made according to the number of birds for which it is required. The illustration explains itself, and the space under the floor is of great advantage, as it gives protection from the weather and is much appreciated by the birds



The house should be removed every few days on to fresh ground. It will be noted that two important points, light and ventilation, have received attention from the designer of this house. Worshipful Company of Farriers. Now the examinations are conducted in a Strong handles placed at each end would facilitate removal, or the house could readily be fixed on wheels. It corrugated iron is used for the roof it to his name is something of which the should have a wooden lining, as the former is a rapid conductor of heat and

High-Priced Hogs.
The sale of Poland China Swine at the Fair Grounds, Springfield, Ill., Aug. 5, indicates that notwithstanding the hard times and that this is a political campaign year, usually dull for business, there are men that have great faith in the money-making power of the American hog. The animals sold, owned by three central Illinois breeders, were nearly all good individually and in pedigree, some of them in these regards were considered of special excellence. The day was here the hottest of the season, but the building in which the sale was held permitting access of air from all sides, bidders were not unduly heated except it was at times ini making bids. Bidding was generally lively and little time was taken in endeavors to secure another dollar when buyers were slow in answering the call of the salesman. The animals sold were all old enought to show their quality and usefulness. The highest price was for a two year old sow that went to Indiana on the record beating bid of a good plan for keeping the flies off \$1,810, the most that was ever paid for e cow at milking time has been sug- a hog at public auction. The next highest price was for a two year old sow ork to a charm, and certainly it costs but it would seem that better bargains little to try it. The method is to throw | were had in the abnormally high priced ones. The Poland China breeders have

NAMES OF VEHICLES.

"Tally-Ho," "Drag," "Trap," and Other Words That Are Misapplied. The fact that the first coach ever

brought to this country by Colonel DeLancey Kane was named by its owner "the tally-ho" is no justification for twisting the meaning and enlarging upon the importance of the word so as to make it refer to coaches generally considered, says the Pittsburg Dispatch. The word "tally-ho" is used in a perverted sense as applied to coaching. It is a hunting term, pure and simple. Take the common expression that you hear on every side: "Mr. So-and-So has just passed by in his drag." Now a man up in such things would expect to see a person go by with a swell four-in-hand turnout. Drag is the name applied to a coach when it is used privately. As soon as a four-in-hand coach is put into public service and a fare is charged for riding upon it it ceases to be a drag and becomes a coach, just as a hansom when driven publicly becomes a hansom cab. Another common mistake is the calling of two horses a team instead of a pair. A pair of horses is never a team unless hitched tandem. A team is something more than a pair, such as a tandem, unicorn, four-in-hand, etc., and to hear people talk about a pair of horses as a team is quite as bad as to hear a person say, "John, put that single set of harness on the bay." A single set of harness is an impossibility, as it takes a double equipment for a set. Used in the sense of the word trap is another expression which you never hear except in the very Yankee states. It seems to be a generic name for all kinds of traps and nothing is too lowly or too lofty to apply the term to. A name almost as general as rig in its significance is "dog cart." It seems as if anything having two wheels should be given this name, according to notion here. The only thing that should be given the name, however, is a twowheel cart having a box under the seat, called a dog box, for the reception of dogs, guns, game and such things. You very seldom hear the arrangement of one horse in front of two spoken of as a unicorn; it is more usually called a "spike"; yet this is the slang for it. Properly speaking, a "spike" is the name that should be applied to such teams as you find work ing in iron or dray wagons, when the driver rides the near horse and drives the lead horse with a jerk line.

ONCE A FRENCH DRUMMER. Now a Chinese General with a Native Wife.

While on Chinese topics, let me notice a romantic story which is now going the rounds, says the London Globe. The soldiers of the 10th regiment of infantry now quartered at Laval are probably not aware that one of their drum-majors has been, if he is not so still, a general in the Chinese army, and one of the most precious auxiliaries of Li Hung Chang. His name was Pinel, and he took part in the campaign in China in 1860. Gifted with superior intelligence, he took advantage of his stay in the celestial empire to learn the Chinese language, turned to France at the end of the

His time having expired, he though of the future and was soon convinced that, even if he re-enlisted, he could never become more than a drum major. The idea of returning to China then struck him, and one fine morning he packed up his trunk and set out for Pekin. On arriving there he went straight to Li Hung Chang, who was then operating against the Tai-Pings, and, throwing himself on his knees, exclaimed: "Great man, your high intelligence will be able to distinguish better than I can do in what way I can be of service to you."

Li Hung Chang, although he had not yet attained the zenith of his glory, was already sick and tired of the exaggerated marks of respect which his compatriots showered on him. But he was little accustomed to the admiration of western peoples. He was consequently greatly flattered by the homage of Pinel and made him a sergeant on the spot. This favor was not a remarkable one, but the ex-drum major was a man who knew how to make his way as soon as he got into the stirrups. And, in effect, he maneuvered so well and gave proof of such capacity that he rapidly rose to the rank of general of

artillery. When Li Hung Chang was sent against the Chinese Mohammedans, who had revolted, Pinel was his principal aid-de-camp and in him he placed his entire confidence. In 1870 Pinel came across some Frenchmen, to whom he related his life. He said he was married to a Chinese lady and was perfectly satisfied with his lot. Only Christian geologists tell us that this one thing seemed to annoy him. It appeared that the Chinese government, while showing itself very liberal toward him, had insisted that all his money and property should remain in the country, so that he should become finally attached to it. Hence Pinel is still believed to be somewhere in the celes-

How He Described It. It takes a business man to describe costume to his wife. A busy son of commerce, after seeing a very taking dress on a very taking young lady recently, informed the partner of his joys: "It was fine. The dress was made of some kind of cloth, with some sort of trimming. It was sorter lilac, or shrimp pink in color, and had for a waist some kind of basque that was indescribable. She were one of those hats together gave an effect that I wish you could have seen."- Exchange,

When you lost, remember the rights

# \*\*\*\* Dr. Talmage's Sermon. \*\*\*\*\*\*\*

Washington, Sept. 20, 1896 .- If the clarion nots of this sermon, delivered at the national capital, could sound through Christendom, it would give everything good a new start. Dr. Talmage's text was Romans, 13:12: "The day is at hand."

Back from the mountains and the

seaside, and the springs, and the farmhouse, your cheeks bronzed and your spirits lighted, I hail you home again with the words of Gehazi to the Shunammite: "Is it well with thee? is it well with thy husband? is it well with the child?" On some faces I see the mark of recent grief, but all along the track of tears I see the story of resurrection and reunion when all tears are done; the deep ploughing of the keel, followed by the flash of the phosphorescence. Now that I have asked you in regard to your welfare, you naturally ask how I am, Very well, thank you. Whether it was the bracing air of the mountains, or a bath in the surf of Long Island beach, or whether it is the joy of standing in this great group of warm-hearted friends, or whether it is a new appreciation of the goodness of God, I cannot tell. I simply know I am happy. It was said that John Moffatt, the great Methodist preacher, occasionally got fast in his sermon, and to extricate himself would cry "Hallelujah!" I am in no such predicament to-day, but I am full of the same rhapsodic ejaculation. Starting out this morning on a new ecclesiastical year. I want to give you the keynote of my next twelve months' ministry. I want to set it to the tunes of "Antioch." "Ariel," and "Coronation." I want to put a new trumpet stop into my sermons. We do wrong if we allow our personal sorrows to interfere with the glor'ous fact that the kingdom is coming. We are wicked if we allow apprehension of national disaster to put down our faith in God and in the mission of our American people. The God who hath been on the side of this nation since the Fourth of July, 1776, will see to it that this nation shall not commit suicide on November 3d, 1896. By the time the unparalleled harvests of this summer get down to the seaboard we shall be standing in a sunburst of national prosperity that will paralyze the pessimists who by their evil prophecies are blaspheming the God who hath blest this nation as he

In all our Christian work you and I want more of the element of gladness. No man had a right to say that Christ never laughed. Do you suppose that he was glum at the wedding in Cana of Galilee? Do you suppose that Christ was unresponsive when the children clambered over his knee and shoulder at his own invitation? Do you suppose that the Evangelist meant nothing when he said of Christ: "He rejoiced in spirit?" Do you believe that the Divine Christ who pours all the waters over the rocks at Vernal Falls, Yosemite, does not believe in the sparkle and gallop and tumultuous joy and rusing raptures of human life? I be lieve not only that the morning laughs, and that the mountains laugh, and that the seas laugh, and that the cascades laugh, but that Christ laughed. Moreover, take a laugh and a tear into an alembic, and assay them, and test them, and analyze them, and you will often find as much of the pure gold of religion in a laugh as in a tear. Deep spiritual joy always shows itself in facial illumination. John Wesley said he was sure of a good religious impression being produced because of what he calls the great gladness he saw among the people. Godless merriment is blasphemy anywhere, but expression of Christian joy is appropriate every-

hath blest no other.

Moreover, the outlook of the world ought to stir us to gladness. Astronomers disturbed many people by telling them that there was danger of stellar collision. We were told by these astronomers that there are worlds coming very near together, and that we shall have plagues, and wars, and tumults, and perhaps the world's destruction. Do not be scared. If you have ever stood at a railroad center, where ten, or twenty, or thirty rail tracks cross each other, and seen that by the movement of the switch one or two inches the train shoots this way and that, without colliding, then you may understand how fifty worlds may come within an inch of disaster, and that inch be as good as a million miles. If a human switch-tender can shoot the trains this way and that without harm, cannot the hand that for thousands of years has upheld the universe, keep our little world out of harm's way? world was millions of years in building. Well, now, I do not think God would take millions of years to build a house which was to last only six thousand years. There is nothing in the world or outside the world, ierrestrial or astronomical, to excite dismay. I wish that some stout gospel breeze might scatter all the malaria of human foreboding. The sun rose this morning at about six o'clock, and a think that is just about the hour in the world's history. "The day is at

The first ray of the dawn I see in the gradual substitution of diplomatic skill for human butchery. Within the last (wenty-five years there have been international differences which would have brought a shock of arms in any other day, but which were peacefully adjusted, the pen taking the place of the sword. The Venezuelan centroversy in any other age of the world would have brought shock of arms, but now is being so quietly adjusted that ne one knows just how it is being set-

I find another ray of dawn in the compression of the world's distances. What a slow, snail-like, almost impossible thing would have been the world's rectification with fourteen hundred millions of population and no facile means of communication; but now, through telegraphy for the eye and telephonic intimacy for the ear, and through steamboating and railroading, the twenty-five thousand miles of the world's circumference are shriveling up into insignificant brevity! Hong Kong is nearer to New York than a few years ago New Haven was; Bombay, Moscow, Madras, Melbourne within speaking distance. Purchase a telegraphic chart, and by blue lines see the telegraphs of the land, and by the red lines the cables under the ocean. You give for the final movements of Chris-

see what opportunity this is going to One more ray of the dawn I see in facts chronological and mathematical. Come now, do not let us do another stroke of work until we have settled one matter. What is going to be the final issue of this great contest between sin and righteousness? Which is going to prove himself the stronger, God or Diabolus? Is this world going to be all garden or all desert? Now let us have that matter settled. If we believe Isaiah, and Ezekiel and Hosea, and Micah, and Malachi, and John, and Peter, and Paul, and the Lord himself, we believe that it is going to be all garden. But let us have it settled. Let us know whether we are working on toward a success or toward a dead failure. If there is a child in your house sick, and you are sure he is going to get well, you sympathize with present pains, but all the foreboding is gone. If you are in a cyclone off the Florida coast, and the captain assures you the vessel is staunch and the winds are changing for a better quarter, and he is sure he will bring you safe into the harbor, you patiently submit to present distress with the thought of safe arrival. Now I want to know whether we are coming on toward dismay, darkness and defeat, or on toward light and blessedness. You and I believe the latter, and if so, every year we spend is one year subtracted from the world's woe, and every event that passes, whether bright or dark, brings us one event nearer a happy consummation, and by all that is inexorable in chronology and mathematics I commend you to good cheer and courage. If there is anything in arithmetic, if you subtract two from five and leave three, then by every rolling sun we are coming on toward a magnificent terminus. Then every winter passed is one severity less for our poor world. Then every summer gone by brings us nearer unfading arborescence. Put your algebra down on the top of your Bible and rejoice.

If it is nearer morning at three o'clock than it is at two, if it is nearer morning at four o'clock than it is at three, then we are nearer the dawn of seems to go very slowly, but the pendulum swings, and the hands move, and it will yet strike noon. The sun and the moon stood still once; they will never stand still again until they stop forever. If you believe arithmetic as well as your Bible, you must believe we are nearer the dawn. "The day is

Beloved people, I preach this sermon because I want you to toil with the sunlight in your faces. I want you old men to understand before you die that all the work you did for God while yet your ear was alert and your foot fleet is going to be counted up in the final victories. I want all these younger people to understand, that when they toil for God they always win the day; that all prayers are answered and all Christian work is in some way effectual, and that the tide is setting in the right direction, and that all heaven is on our side-saintly, cherubic, archangelic, omnipotent, charlot and throne, doxology and procession, principalities and dominion, he who hath the moon under his feet, and all

the armies of heaven on white horses. Brother! brother! all I am afraid of is, not that Christ will lose the battle, but that you and I will not get into it quick enough to do something worthy of our blood-bought immortality. O Christ, how shall I meet thee, thou of the scarred brow and the scarred back and the scarred hand and the scarred foot and the scarred breast, if I have no scars or wounds gotten in thy service? It shall not be so. I step out to-day in front of the battle. Come on, ye foes of God, I dare you to the combat! Come on, with pens dipped in malignancy. Come on, with tongues forked and viperine. Come on with types soaked in the scum of the eternal pit. I defy you! Come on! I bare my brow, I uncover my heart. Strike! I cannot see my Lord until 1 have been hurt for Christ. If we do not suffer with him on earth, we cannot be glorified with him in heaven. Take good heart. On! On! On! See! the skies have brightened! See! the hour is about to come. Pick out all the cheeriest of the anthems. Let the orchestra string their best instruments. The night is far spent, the day is at

## POPULAR SCIENCE.

Important improvements in Roentgen

he green leaves of the colory, plant.

#### THE SUNDAY SCHOOL.

SECOND QUARTER-LESSON 1 -OCT 4-KING SOLOMON.

Golden Text: 'Keep the Charge of The Lord Thy God to Walk in His Way" -From First Book of Kings, Chapter:



HE section 1 Bto 3: 3; 1 Chroni-cles 28 and 29; and Psalm 45, describing the marriage probably of Soloeign princess; and Psalm 72, a psalm of Solomon expressing his ideal of the kingdom. Both psalms have a typical outlook

his kingdom. In order to make this lesson profitable, it is necessary to take a wide range, contrasting Solomon with others noticed in the passage, and others noticed in the passage, and referring to the Psalms which belong to the history, with an outlook into the the history, with an outlook into kingdom of the Messiah, of which S mon's kingdom, in its hopes and possibili-ties, was a type. Psalm 72 is a good re-lection for responsive reading in the

To-day's lesson includes 1 Kings 1: 28-

29, as follows:
28. "Then King David said, Call me
28. "Then King David said, Call me
Bathsheba," "who had retired before Nathan entered, in accordance with Oriental ideas of propriety. So when Bathsheba was again sent for (v. 28) Nathan retired (v. 27)". Cook

v. 32)."—Cook. 29. "And the king sware, and said." The king had no hesitation, but, with his old-time energy and rapidity, from his sick-bed he issues his orders. "Hath redeemed my soul out of all distress." The repeatmy soul out of all distress." The repeated deliverance out of straits and danger—"out of the hand of his enemies and out of the hand of Saul'—was one of the most remarkable features of David's life, and it is no wonder the hand of the most of the it is no wonder that he repeatedly com-memorates it, converting every adjura-tion into an act of thanksgiving.—Pulpit

Commentary.

32. "Call me Zadok the priest, and Nathan the prophet, and Benaiah the son of Jehoiada." The order of names marks the position of the persons with respect to

the position of the persons with respect to the matter in hand.

23. "The servants of your Lord." The Cherethites and Pelethites, who formed the royal body-guard (see v. 38). Perhaps also the Gibborim, or mighty men. Compare 2 Samuel 20: 6, 7. "Cause Solomon... to ride upon mine own mule." The Rabbins tell us that it was death to ride on the king's mule without his permission; and thus it would be the more evident to all that the proceedings with respect to Solomon had David's sanction. It was probably with this object, and not merely to do Solomon honor, that he was

merely to do Solomon honor, that he was thus mounted.—Cook, "Bring him down to Gihon." Either the valley that ranfrom the Damascus Gate between the Temple hill and Mount Zion,—called afterwards the Tyropoeum,—or the valley west of Jerusalem. 24. "Anoint him there." The anointing

was the most solemn portion of the cere-monies connected with the installation of a new king. We only read of its being done on some very marked occasions. The ceremony is intended to symbolize the outpouring of gifts from above upon the new monarch.—Cambridge Bible. "Blow ye with the trumpet," to proclaim to all the announcement that Solomon was king.
35. "That he may come" up to Z'on and

the palace. "And sit upon my throne" as David's partner and successor. He reigned about six months as co-regent.

26. "Benaiab," the commander-in-chief

of Solomon's army, in place of Joab. His father, Jeholada, was a chief priest. "Amen:" so let it be. 37. "Make his throne greater than the throne of my lord king David." Every wise father is glad to see his son do bet-ter than he himself has done. And doubly

when he thinks of the people and the

cause, and not of himself. Illustration. There is a story, which I suppose to be true, but if not it is good enough to be true, that when the younger Professor Silliman of Yale was once lecaudience. A gentleman sitting close be-hind him was so interested and aroused that he exclaimed in an audible whisper, "He beats the old gent." The father, turning around to the unknown man, re-"He ought to; he stands on my

Cherethites and Pelethites, either executioners and couriers or companies of foreign body-guards, to execute the king's commands. So the French kings had Swiss guards: the Vatican to-day is guarded by Swiss soldiers, and the sul-

39. "And all the people said, God save king Solomon." They accepted him as their king, with shouts that rent the earth with the sound thereof. The attempt of Adonijah was thus nipped in the bud. He himself was permitted to live, so long as he behaved in a safe and proper

Psalm 72. Solomon stood on the threshold of a great, prosperous, well-organized kingdom, the most hopeful the world had seen, containing within it the germs of the true religion and the hopes of the world. It was the type of the kingdom of God, David.

It was Solomon's opportunity to make the kingdom the ideal kingdom of the world, to which all kingdoms should look for a model; which should proclaim the one true God, the true worship of God. one true God, the true worship of God.
perfect righteousness in rulers and people, and the blessings and happiness
which God would give to all who would
thus serve him and bless men. All this
would hasten the coming of the kingdom
of heaven on earth, and would faintly
symbolize what that kingdom, through,
the Messiah, was to be.

Bamboo plants are said to have the peculiarity of blooming at exactly thesame time, whether in Europe or Afrion, the difference in climate and surroundings seeming to make no change in the plants bursting into flower. It blossoms rarely, but as it dies immediately afterward this cannot be deplored. The plant is said to be exquisitely graceful and is easily culti-

## SOUTHWEST BREEZES.

It is surprising how worthless a man

Some people make us so tired that we can't sleep at night. You can't fool the people half as casily as you think you can.

You can always depend upon the neighbors seeing everything.

There are so many lasy men that prizes should be given to those who