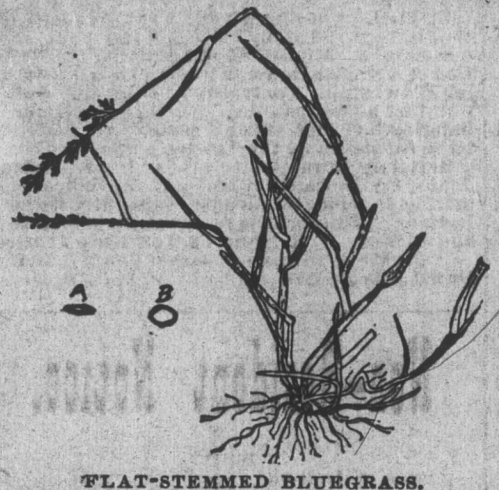


FARMERS' CORNER

Flat-stemmed Bluegrass.
A correspondent writes to the Ohio Farmer inquiring the name for an enclosed sample of grass. The Farmer replies that the grass included with this letter is flat-stemmed bluegrass, *Poa compressa* L. It grows in dense tufts, forming a thick but usually intermittent sward. It spreads by underground stems shown in figure, and hence often, in light soils, rapidly invades the meadows. It is a good grass in many respects, but is so much less productive than Kentucky bluegrass, *Poa pratensis* L., that many persons entertain a rather low opinion of its merits. The specific name, "*compressa*," refers to its flattened stems or culms, in contrast with the commonly cylindrical ones. This character, with its short blades and wiry stiffness, permits a ready recognition of flat-stem-



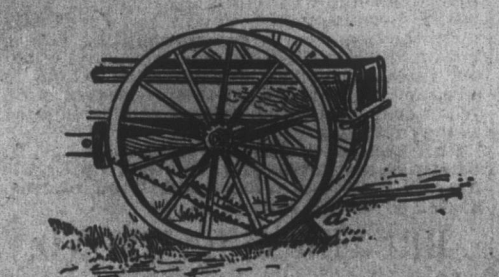
FLAT-STEMMED BLUEGRASS.

med bluegrass; A, in the cut, is a cross section of a stem, and B, of an ordinary round stem grass.

Cultivation and Apple Trees.
At the Nebraska station a study was made of the effect of cultivation on the growth of apple trees, the size of fruit and the water contents of the soil. A small orchard was divided into three parts, one of which was cultivated regularly and the other two left in grass and weeds, one of the latter being mowed and the other pastured by hogs. The report says: "Trees in cultivated ground suffered noticeably less from the drought and hot winds of summer than those in sod ground. The foliage was darker and more vigorous in appearance, and there was no yellowing and dropping of the leaves, nor wilting during hot, windy days, both of which occurred with uncultivated trees. Apples from cultivated land averaged nearly 14 per cent larger in weight than those from pasture land and over 17 per cent larger than those from mowed land."—Grange Homes.

How Salt Helps Fertility.
While the soda and chloride of salt have no manurial properties, there is often a decided effect from using salt as topdressing for land that has organic matter. Only very small amounts are used per acre, and thus used the salt hastens decomposition, and this sets free whatever carbonic acid gas or ammonia the organic matter contains. Salt is usually thought of as a preservative. It is so when in amounts large enough to pickle what it is applied to. When carbonic acid gas is liberated, that acts as a solvent on the inert potash and phosphate that the soil contains, thus often serving in place of those minerals at much less cost than if they were bought and applied.

A Brake Block.
This is used by teamsters in mountainous regions. A three-cornered block, A, of wood is fastened by chains or wires to the brake beam of a wagon so that it will drag on the ground about 2 inches behind one of the rear wheels of the wagon. The driver stops to rest his team, and instead of applying the brake the team is allowed to slacken its traces so the weight of the load will rest on the self-acting chock block.



EFFECTIVE BRAKE BLOCK.

When the team starts again the team merely has to start the load instead of having to pull against the brake until it can be loosened.—American Agriculturist.

Cultivation of Crops.
There are no certain periods for work on a farm so far as the cultivation of crops is concerned. Each crop demands cultivation according to its stage of growth and the conditions of the land. The harrow and cultivator cannot be used too often. The difficulty is that some farmers limit the number of times a crop should be cultivated without regard to conditions and circumstances. No field can be said to have been well cultivated as long as a single weed can be seen standing.

Small Celery Best.
There is a great difference in the quality of celery, and this makes the size a matter of comparatively little account. The giant varieties of celery are now superseded in favor of dwarf kinds that are crisp and nutty in flavor. Something, however, depends on the soil and method of growing. A moist soil makes the celery grow much fuller of its native juices than one which is dry. The soil can hardly be too rich,

for the quicker the growth the better it is, whatever the variety. Celery that is any way stunted becomes stringy, and if it is checked by drought it will have comparatively little of the characteristic celery flavor.

Pruning Vines in Summer.
The chief art in gardening consists in not allowing our plants to have their own willful way, but to make them behave as we want them to. Vines generally make desperate attempts to get to the top of a bush or tree that they twine around, and the lower portion is nothing but a series of naked stems. When we set them to trellises we want this proceeding reversed. We desire as many branches close to the ground as at the extreme upper portion of the pole or frame on which they are supported. The educated gardener understands how to do this. The grower of grapes under glass has to know how to do it, as otherwise he would have grapes in the apex of the roof and nowhere else. He applies the same principle to the growth of flowering vines out of doors as to his grapes under glass, or to the grapes in the outdoor garden, for that matter, with equal results.

The art is very simple. It is simply to pinch out the apex of the strong growing shoots that want to get up still higher, and leave the struggling shoots at the base alone. The growth force, suddenly checked by the topping of the upper shoots, has to be expended somewhere, just as the sudden stoppage of water being forced through a pipe may burst that pipe. It is diverted to the lower and weaker shoots, which become, before the season is over, as strong as the upper ones.

In the hands of a good gardener a grapevine trellis will have fruit over every part of its surface—and have as fine fruits at the apex as at the base. But how rarely do we see these masters of the art; and how simple the art is, after all.—Mechan's Monthly.

Ventilation of Horses' Stables.
Good ventilation of stables with plenty of light should be provided for horses in summer. Many horses are kept in underground stables. This is very bad, especially in summer, when excrement rots very quickly, filling the stables with ammonia. This is very injurious to horses' eyes, especially if the stable be rather dark. This causes enlargement of the pupil of the eye, and the change to bright sunlight when the horse is brought out of the stable often results in making him blind. It is worse if there are one or two small windows where sunlight can come in. The underground stable should in summer be unused; it is tolerable only in cold weather.

Welsh Heifer.
The Welsh heifer shown in the picture is the property of Col. H. Platt.



WELSH HEIFER.

Gorddino, Llanfairfechan, Wales. She is the winner of first prize at the show of the Royal Agricultural Society of England in Birmingham.

Gapes.
Since so many lose their chickens with this dreadful disease, if it may be called such, I will give what I consider a preventive, says a writer in Practical Poultryman. At from three to four weeks old I give a little whey to drink that is very sour. Recently I did not have any, and at four weeks of age I found one chicken with gapes. I placed a basin on the stove with a little sour milk in, and after the curd had separated I let it sour a day or so and gave to my chickens, and have seen no more gapes since. Always have plenty of water by chickens so they will not drink too much.

Feeding Clover to Fowls.
The very common advice to feed clover to hens as an aid to egg production needs to have a caution attached to it. If hens have grain with the clover they will not probably eat too much of the lighter food for their good. But exclusive reliance on cut clover as winter feed for a day or two may do the gizzard with light indigestible food that when grain is given it only makes the matter worse by furnishing more heating material to ferment in the crop. Wherever much grain is given to fowls they become too fat to lay, and it is such hens that are most likely to be crop bound.

Ridding Land of Bushes.
Most farmers are infested to a greater or less extent with bushes, which are exhaustive of fertility and patience, and are unsightly. They are cut regularly each spring, but continue to come up and multiply. It is a fact not generally known that if they be grubbed up during "dog days," or at the time when they have about attained their growth for the year, 90 per cent of them will be effectually killed and the rest so enfeebled that they will do but little harm the next season, and can be easily killed at the second grubbing.

Growing Potatoes Under Straw.
Plow the ground deep and pulverize fine. When the weather becomes warm, mark out shallow rows 2½ feet wide, drop your potatoes and cover lightly with dirt. Then cover with old hay or clean threshed straw eight or ten inches deep. If straw has wheat left in it, the wheat will come up and damage the potatoes. The yield in raising potatoes under much is double that under the best cultivation, and is especially recommended for localities having drouthy seasons.

OUR MANUFACTURES.

HOW THE OUTSIDE WORLD IS CALLING FOR THEM.

What the United States Has Accomplished by Adhering to the Protectionist Policy of Developing Domestic Industries.

Remembering the years during which disinterested free-traders were urging and often reiterating their advice that the people of the United States confine themselves to the pursuit of agriculture, to food-raising and to the production of raw materials, and to leave to other and far more favored countries the business of converting these raw materials into manufactured commodities. It is interesting to note some of the important consequences resulting from the disregard of that extraordinary counsel and the consequent establishment of the policy of protection. From statistics gleaned by the Treasury Bureau of Statistics it appears that manufactures are now forming more than one-third of our total domestic exports. During the last month they were \$3.77 per cent of the total domestic exports, during the three months ending with May they were \$5.50 per cent, and during the fiscal year just ending they will form a larger percentage of our total domestic exports than

Cars for railways....	1,436,237	1,738,652
Cloths and wools....	1,855,519	1,737,469
Carrriages and horse cars....	1,064,284	1,085,838
Gunpowder and other explosives....	885,687	1,886,406
Soap....	839,558	1,880,008
Musical instruments....	998,072	1,880,667
Starch....	272,630	1,571,549
Zinc, manufactures of....	28,684	1,889,968
Brass, manufactures of....	321,137	1,320,093
Oil, vegetable (including cotton and linseed)....	244,415	1,287,365
Glass and glassware....	894,200	1,211,084
Wood, manufactures of....	343,949	1,069,533
Paints and painters' colors....	507,749	1,079,518
Sugar, refined, and confectionery....	1,231,921	1,032,376
Stationery, except of paper....	474,839	1,005,016

Keep Hands Off!
There has been a great deal of foolish talk as to the necessity for a protective tariff having passed, because in some articles of manufacture we are able to undersell the world, and hence our exports of these manufactured goods are increasing at a magnificent rate. This is a proof of the soundness of the Republican doctrine that a protective tariff does not interfere with the development of our export trade. The free traders have always declared that a large volume of manufactured exports is impossible under protection. We have, during the past two years, proved the utter falsity of this theory. Don't go to juggling with the tariff. Let well enough alone. The people of this country have lost, in the aggregate, many millions of dollars by the check to enterprise which has resulted

DEMOCRACY'S CAMPAIGN CRY FOR 1900.



—New York Tribune.

In any preceding year, and exceed by many millions the total exports of manufactures in any preceding year. The fiscal year 1898 showed the largest exports of manufactures in our history, \$290,697,354, and in the eleven months of the fiscal year 1899 the increase over the corresponding months of the preceding year has been \$45,164,000, so that it is now apparent that the exports of manufactures in the fiscal year now ending will be about \$335,000,000, as against the high-water mark, \$290,697,354 in the fiscal year 1898. This would seem to indicate that we did well to run exactly counter to the views and wishes of our Cobdenite advisers.

Iron and steel continue to form the most important, or at least by far the largest item of value in the exports of manufactures. In the month of May, 1899, the exports of iron and steel, and manufactures thereof, amounted to \$8,601,114, making the total for the eleven months \$84,873,842, against \$63,235,029 in the corresponding months of last year—a gain in the eleven months of over \$21,000,000. The recent advances in prices of iron and steel caused the belief that a reduction in the exports of iron and steel would follow, but certainly has not been realized up to the present time, since the exportations of iron and steel in the month of May are 20 per cent in excess of those of May of last year, while those of April are nearly 50 per cent. In excess of April, 1898.

The increase which the year's exports of manufactures will show over earlier years lends especial interest to a table prepared by the Treasury Bureau of Statistics showing the exportation of manufactures by great classes in each year from 1889 to 1898. The following extracts from it show the exportations in 1889 and 1898 of all articles whose total value exceeded \$1,000,000 in the year 1898:

	1889.	1898.
Iron and steel, and manufactures of....	\$21,156,077	\$70,406,805
Refined mineral oil....	44,530,545	51,782,316
Copper manufactures....	2,848,954	32,180,872
Leather, and manufactures of....	10,747,710	21,113,640
Cotton, manufactures of....	10,212,644	17,024,092
Wool, manufactures of....	6,150,281	9,098,219
Chemicals, drugs and dyes....	4,792,831	8,655,478
Wool, manufactures of....	3,623,769	7,606,732
Cycles and parts of....	2,029,002	6,946,529
Paraffin and paraffin wax....	1,191,035	5,494,561
Tobacco, manufactures of....	3,708,000	4,818,493
Fertilizers....	988,559	4,530,834
Instrumental for scientific purposes....	1,033,388	2,770,803
Flax, hemp, jute and manufactures of....	1,644,405	2,537,465
Books, maps, engraving, etc....	1,712,079	2,434,328
India rubber and gutta percha, manufactures of....	331,748	1,961,501
Grains and manufactures of....	2,316,101	1,850,593
Manufactures of....	510,054	1,792,552

from the agitation of the tariff question from 1884 to 1896. We are getting ample revenue from the Dingley bill. It oppresses no one. Keep hands off, and let the country go on prospering!—Toledo Blade.

To Some Extent Responsible.
It is useless to deny that the policy of protection to American labor and industry is more or less responsible for the existing deadlock on the wage question between the tin plate manufacturers and their employees. Had there been no protective tariff on tin plate there would certainly be no labor trouble in that industry at the present time, and for the best of all reasons: There would now be no tin plate industry in this country, and the question of wages could not possibly have come up. It will be remembered that prior to the enactment of the McKinley law there were no tin plate mills and hence no labor troubles.

Subjects to Be Avoided.
The condition of the United States Treasury at the close of the war, the advance in wages throughout the country, the commercial showing at the close of a year that had witnessed the beginning and end of a successful foreign war, and the international feeling of respectful admiration for America under the present Republican administration are subjects avoided by polite gentlemen when talking with Democrats.—Indianapolis (Ind.) Journal.

Arrest Disease by Killing the Patient.
The tariff has simply made good times; good times have made it possible for trusts to be profitable. The proposal is now made by the free traders that the tariff should be done away with, thus doing away with these good times, in order to do away with the trusts. It is much like urging one to cure a painful foot by cutting off the foot.—Counsell Bluffs Nonpareil.

Would Rather Not Notice It.
The advance in wages of workingmen in various parts of the country goes merrily on, but the Democratic papers are so busy howling at expansion that they fail to notice it at all.—Cleveland (Ohio) Leader.

Not to Be Trust-d.
The American people would far rather hear Mr. Bryan on trusts than to take him for President on trust.—Indianapolis (Ind.) Journal.

Cape Off.
The comedian boarder allowed his eyes to roam around the table until they rested on the strawberries. "Any one," he said, addressing the sweet singer, "could see that these berries were not brought up right?" "And why not?" "Because they come to the table with their caps on." Then the landlady grifted her teeth.

INDIANA INCIDENTS.

RECORD OF EVENTS OF THE PAST WEEK.

Struck by a Lightning Bolt—Rural Mail Delivery System to Be Extended—Caught by an Undercurrent—New Trial for Flory—Foretold His Death.

During a heavy thunderstorm Earl D. Simpson met death in a tragic manner. He, in company with Edward Jones, was diving from the Chester River Steamboat Company's wharf at Chestertown. The swimmer had mounted a pile twelve feet high for the purpose of making a dive, and as he stood poised for the plunge the fatal flash came from a comparatively clear sky and the young man fell to the wharf dead. His companion and a teamster and four horses that stood scarcely twenty feet away, were shocked, but in no degree stunned by the current.

Rural Delivery in Indiana.
Rural free mail delivery, which has been in successful operation at several points in the State for some months past, may be greatly extended within the next year. E. H. Hathaway, special agent for the work in Indiana, has begun reorganizing old routes and establishing new ones. Many places have applied for the delivery of mail in the country districts, but Mr. Hathaway does not think all can get their petitions granted, although most of them have the indorsement of Congressmen. He thinks that perhaps twenty new routes will be established within the next year.

Boys Drowned in the Wabash.
Five boys were in bathing in the Wabash at Lafayette, and three of them—Charles Zink, Walter Vellinger and Paul Held—were drowned. Two boys named Snyder were heroically rescued by another boy named George Miller. The boys were drowned by the undercurrent at the mouth of Durgee run, the most treacherous place in the Wabash. None were over 12 years old.

Flory Given a New Trial.
John Flory, whom the jury at Paoli sentenced to life imprisonment for the killing of Jessie Burton at Mitchell last November, was granted a new trial by the court on account of errors made in instructing the jury. Flory was taken to the reformatory at Jeffersonville for safe keeping, owing to some fear of mob violence.

Preacher Foretells His Death.
Rev. Quiller Pardee died at Martinsville, aged 50 years. He preached at a basket meeting a few days ago, and remarked that he would make no further appointments, as he did not expect to live long. The next day he was seized with brain fever and his premonition was verified.

Within Our Borders.
Diphtheria is raging in Patricksburg. Martinsville will have a street fair in August.

Barr flour mill, Princeton, damaged \$10,000 by fire.
George Gentry, 17, Boonville, drowned while swimming.
Huston Hood, 22, drowned while seining in Haw creek, near Columbus.

C. T. Godford, farmer near Brazil, was drowned while fishing in Eel river.
North Vernon has seven churches and eleven saloons, the crap shooter's limit.

James Cook, Carbon, stole robbers chloroformed his family and stole \$180.

Harrison Kurz was seriously stabbed near the heart by Albert Blake near Pilot Knob.

Alpha McDowell, 3, Kokomo, set fire to her clothing while playing with a box of matches and is dead.

Ten cattle belonging to O. M. Tustison, Putnam County, licked white lead from a paint keg and died.
James T. Reid, an influential citizen of Sullivan, is dead in Denver, whither he had gone for the benefit of his health.

The Peerless flour mill at Mount Vernon, the property of Kauffman Brothers of St. Louis, was destroyed by fire. Loss \$110,000, insurance \$75,000.

Elmo Interden, late of the 159th Indiana volunteers, committed suicide by shooting himself through the head while standing in front of his father's place of business at Vincennes.

G. T. McKim of Thornwath has received a letter from Stephen Fell, formerly of that place, dated from South America, which says that for twelve years he has been a slave in a tribe on the upper Amazon.

Mrs. William A. Culp of Vincennes has been appointed by Gov. Mount an honorary commissioner to the Paris exposition to represent the women of Indiana.

Jacob Ellis of Anderson, aged 85 years, has become father of his sixteenth child. The mother is but 45 years old. The youngster is sturdy and has good lungs. It weighs ten pounds.

The Fairmount zinc spelter works at Fairmount were destroyed by fire. The fire was caused by an explosion of gas. About 100 men were employed in the plant. There was no insurance. The plant will be rebuilt at once.

Huntsville, the town built on alleged magnetic iron ore, has been torn to pieces again by an electrical storm and one death—that of Mrs. James Rodgers—resulted. The town has been the mark of lightning each year. Every great storm is certain to center its worst bolts at that point.

Joseph Mosely, colored, a carpenter, was the victim of a peculiar accident at Evansville, and his death will be the result. While engaged in repairing the roof of a house he started to saw a board for a scaffold. He carelessly sat on the outer edge, though, and sawed between himself and the fastened end. As a consequence when the board broke he plunged down head foremost a distance of eighteen feet between two houses.

William Richards while swimming at Robinson Park, Fort Wayne, was seized with cramps and drowned almost within reach of his companions.

Fire destroyed the large farm residence of W. C. Fisher, about four miles northeast of Franklin. It is supposed the house was set on fire while the family was attending church.
One hundred and fifty men in the tin plate trust's plant in Anderson and seventy-five at Middletown went out on a strike. The trust refused to change from two twelve-hour to three eight-hour shifts.

SERMONS OF THE WEEK

The Soul.—The soul is destroyed or released to the realm of universal forces by the event of death.—Rev. O. W. Wendte, Unitarian, Los Angeles, Cal.

Christ's Divinity.—Faith in Christ's divinity may be difficult, but less difficult than the acceptance of any other possible explanation of his person.—Dr. G. H. Combs, Kansas City, Mo.

Science.—Science knows nothing of a spiritual world, though it leads the mind up to problems which require it to postulate a spiritual world.—Rev. L. P. Mercer, Swedenborgian, Chicago, Ill.

The Divine Methods.—The divine methods are wise in matters of religion as all else. God requires that man shall recognize his duty in spiritual things.—Rev. Dr. Geo. H. Adams, Methodist, Brooklyn, N. Y.

A Larger Faith.—The religion of a larger faith calls Christian men to a larger and more adequate faith in God as the invincible power of righteousness.—Rev. I. P. Coddington, Universalist, Rochester, N. Y.

A Primary Conviction.—The idea of immortality is so ingrained into my whole nature—it is so universal among men—that it seems like a primary conviction.—Rev. M. D. Shutter, Universalist, Minneapolis, Minn.

Science.—Science reveals man as God's likeness, that cannot help being immortal. Though the grass seemeth to wither, and the flower to fade away, they reappear.—Rev. Mary B. C. Eddy, Christian Scientist, Concord, N. H.

Too Suspicious.—There is no reason why a Protestant should not be permitted in a Catholic pulpit and preach the truth which he sincerely believes. We are still too suspicious of one another.—Rev. Chas. H. Eaton, Universalist, New York City.

Coolness and Good Judgment.—Never was there a time when coolness and good judgment and close attention to the fundamental principles of our government were more demanded than at present.—Rev. Dr. Conaty, R. C., Washington, D. C.

The Minister's Duty.—The minister must investigate the divine truth. He must study the relation of these truths to the life of those whom he teaches, and he must declare the truth in its entirety.—Rev. J. L. Barton, Congregationalist, Bangor, Me.

Prove All Things.—In the name of the great and electric age, let us wake up and try to be ourselves. Let us prove all things, counting nothing too sacred for our testing, and hold fast only the good.—Rev. B. Fay Mills, Evangelist, Boston, Mass.

Absolute Equality.—Absolute equality among men is neither possible nor desirable, but Christians should so use their money as to bring about a social state in which universal fellow feeling is a possibility.—Rev. Dr. M. C. Peters, Reformed Church, New York.

God as Father.—As Father, the discipline to which God subjects us, even in its bitterest severity, must be salutary and saving. It is our good he seeks. There must be sweetness in the cup of gall.—Rev. Dr. Behrends, Congregationalist, Brooklyn, N. Y.

Truth.—Truth is the matching of thought with reality, and when we find that our world is a world of thought relations we must not conclude that some one thought out these things before we found them to exist.—Rev. F. L. Patton, Presbyterian, Princeton, N. J.

Success of Christ's Work.—Opposition, obstacles, outward hindrances; it is not these which will prevent the final success of Christ's work in the world. Failure or success will be from within the church and not from without.—Rev. A. E. Woods, Baptist, San Francisco, Cal.

Our National Life.—It is in connection with our national life, however, that God is now summoning us onward as never before. Under the pressure of his divine providence we now find ourselves as a nation face to face with unprecedented issues.—Rev. W. J. Chester, Presbyterian, Chicago, Ill.

The Mysteries.—There are those who violently oppose the mysteries which have grown up with religion. They are unwilling to await the process of evolution to gradually cast it off. In their haste they would destroy religion itself, or cast it off with the mysteries.—Rev. G. W. Stone, Unitarian, Kansas City, Mo.

Immortality.—Immortality is a fact of nature. Coexistent with the universal belief and persuasion of a supreme being, of an infinite, all powerful and all wise governing power, has been the ever-enduring idea of a life beyond the limit of physical death.—Archbishop Williams, Roman Catholic, Boston, Mass.

Immortality.—The epistles and the Apocalypse are alive with the assurance of immortality, and all answer to a true and vital intuition in the human soul, which no people or person can destroy, and which no careful student of life and history can ignore.—Rev. R. S. Storrs, Congregationalist, Brooklyn, N. Y.

The Patriot.—The patriot will think on temperance and education and industrial liberty. He will have at least the ultimate unit of human welfare and his love for his own nation will not be a stupendous provincialism, but a dignified sense of national ability contribute to the well being of the world.—Rev. C. F. Carter, Congregationalist, Lexington, Mass.