

# NEWS FROM THE NATIONAL CAPITAL

## FUND FOR EX-PRESIDENTS.

Senator Allison Favors Some Such Action by Congress

Washington, Jan. 1.—Senator William B. Allison, of Iowa, chairman of the committee on appropriations, favors action by congress looking to the care and support of ex-presidents of the United States. In an interview to-night he referred to the recent utterances of ex-President Grover Cleveland on the subject, and agreed with him that some provision should be made in this direction. The matter deserved consideration at the hands of congress, he said, and undoubtedly would receive it. In times of Thomas Jefferson, who died poor, Mr. Allison said, the government would have done well to pay his debts. At present Mrs. Garfield is receiving an allowance from the government, and he said that to make provision for ex-presidents would cause no considerable drain on the treasury, as rarely have there been two of them alive at the same time.

## RIKEY TELLS ALL ABOUT IT.

Brownson Claimed Authority Over Hospital Ships

Washington, Dec. 27.—That a serious breach exists between the bureau of navigation and the bureau of medicine, involving the question of the responsibility of the latter bureau, was made apparent in a statement issued by surgeon General Presley M. Rikey, of the navy, in which he touches upon the circumstances leading up to the probable selection by the president of a medical officer to command the hospital ship Relief over the protest of Rear Admiral Brownson, chief of the bureau of navigation, who has sent his resignation to the president. While disclaiming exact knowledge as to the cause of Admiral Brownson's resignation, the surgeon general's statement leaves little room for doubt that the controversy he reviews was a potent factor.

## Bank Condition is Good.

Washington, Jan. 1.—Senator Ankeny has had several conferences recently with officials of the Treasury department concerning the interests of the national banks in the state of Washington. During the recent financial flurry some difficulty was experienced in the far West by reason of the inability of the banks to obtain the actual money from its reserve cities, even from the subtreasuries. Mr. Ankeny feels confident, after his talks with officials of the treasury, that the situation has been greatly relieved within the last few weeks, and that from now on the same difficulty will not be experienced.

## General to Retire.

Washington, Dec. 27.—Brigadier General Charles S. Smith, on special duty at the proving grounds at Sandy Hook, N. J., has been placed on the retired list of the army by operation of the law on account of age. General Smith is the junior brigadier, having only been appointed to that grade in October last. He is a native of Vermont, but was appointed to the military academy at West Point, N. Y., from Illinois. At the time of his promotion to the grade of brigadier general he was in command of the Sandy Hook proving grounds, with which station he had been identified for many years.

## Change Position of Locks

Washington, Jan. 1.—For strategic purposes and to prevent their bombardment by a hostile fleet, the Isthmian Canal commission has determined to change the location of the dams and locks which it originally intended to construct at La Boca, and instead they will be built at Miraflores, four miles inland and within the zone of safety. It is said that, aside from strategic reasons, there is also the question of cost, the saving of time in the completion of the canal and a more satisfactory foundation can be secured.

## Greene and Gaynor Lose.

Washington, Dec. 26.—The Supreme court of the United States has denied the petition for writs of certiorari bringing to that court the cases of Benjamin D. Greene and John F. Gaynor, who are under sentence to pay a fine of \$57,749 and to undergo terms of imprisonment of four years each on the charges of embezzlement and conspiracy in connection with Captain Oberlin M. Carter's scheme to defraud the United States in connection with harbor improvements at Savannah, Ga.

## Open Land of Spokanes.

Washington, Dec. 26.—To facilitate the opening of the unallotted portion of the Spokane Indian reservation, Representative Jones and Senator Piles have asked the Indian office to send an inspector to Washington to conclude negotiations with the Spokane Indians under which congress can authorize the disposition of all land remaining when allotments are completed. It is hoped that an agreement can be speedily reached so that legislation opening the reservation to entry can be passed this season.

## Figures Are Astounding.

Washington, Jan. 1.—The engineers on the Panama canal are dealing in vast figures and the canal record conveys in a graphic manner an idea of the magnitude of the work to be done upon the locks. It is stated that the amount of concrete to be used in building these locks would suffice to construct eight-room city houses of the generous size of 30x30 feet with two stories and basement and with concrete floors and roof to the number of 22,842.

## Urge Brownson to Talk.

Washington, Dec. 28.—Line officers in the navy are urging Admiral Brownson to publish correspondence relative to his resignation, holding that Rikey's statement was really inspired at the White House. It has developed that the acceptance of his resignation was announced 15 minutes after it had been given to Secretary Metcalf to take to President Roosevelt.

## New Presidential Postoffices.

Washington, Dec. 26.—Following are among the postoffices which will become post offices on January 1: Oregon—Bandon, Clatskanie, Echo, Gresham, 1,100 each; Lents, 1,000; Vale, 1,300. Washington—Burlington, Chehalis, Malton, Rockford, 1,100 each; Raymond, 1,400; Friday Harbor, 1,000. Idaho—Malad City and Parma, 1,000 each.

## Medals for Panama Service.

Washington, Dec. 26.—Medals of a suitable character are to be given to all citizens of the United States who have served the government on the Isthmus of Panama for two years and who during that period have rendered satisfactory service.

## Hawaiian Officials Confirmed.

Washington, Dec. 24.—The senate has confirmed the nomination of Walter F. Frear to be governor of Hawaii and of Fred S. Hartwell and S. M. Ballou to be chief justice and associate justice respectively of that territory.

## STUDY FORESTRY

Students at Oregon Agricultural College Gathering Tree Seeds.

By E. A. Lake, Oregon Agricultural College.

The students in forestry at the Agricultural college are making their first collection of seeds of native trees and shrubs for use in the establishment of a forest tree nursery and arboretum. The purpose in view is not only that the work shall be instructive to the student in the study of seeds and seedage, silviculture and dendrology, but that the plant shall be a source of data to the whole state upon the growth, habit, resistance and general character of the trees and shrubs of Oregon, so far as it is possible to grow them upon the same site and under similar conditions.

Not only are local seeds being collected but seeds from the home districts are coming in from friends of students and the institution. This kindness on the part of those residing in the more distant and mountainous parts of the state is highly appreciated, as it enables the class to obtain a much greater variety than otherwise would be possible with the time and means at the command of either students or institution.

Owing to the fact that the course is but one year old, only the general and preliminary phases of the subject have been considered by the students in the work. The O. A. C. Forest club, an organization of those interested in the forests of the state, is now discussing forest fire laws, their enforcement, efficiency and improvement. Each student is assigned a phase of the topic in hand and in due time reports his findings to the club. Prominent timber, mill and lumbermen upon invitation discuss various topics before the club, as transportation, timber preservation, forest conservation, re-forestation, improved methods of lumbering, U. S. forest service work and similar topics.

Later the advanced students will take up work looking to the solution of some of the very practical problems now before the wood users of the country. The great problem of what to do with the wastes, including the standing timber that is injured by insect and fungus foes, will be one of the first to be investigated as soon as the equipment of the department will permit.

The statement is made upon good authority that fifteen per cent of the mature timber on the western slope of the central region of the Cascade mountains is wholly lost through fungus disease, and that another fifteen per cent is gnored as cull. Beetles, borers and minor foes do considerable further damage, and it is safe to say that the sum total of these losses must amount to millions of dollars. It is reasonable to suppose, in the face of recent results in agricultural practices in our own country, that by using the modern forestry practices of Europe, that the major part of this loss could be turned to gain through the intelligent investigation of the troubles and the application of modern measures for combating these foes of the forest.

Other great problems are those relating to taxation, re-forestation, utilizing mill waste, improved methods of harvesting the crop, disposing of the debris and weed trees, timber technology and the preservation of lumber.

These problems together with many more it is the purpose of the college to help solve through the department of forestry, as well as train men to take hold of the practical work and problems of our forests and thus insure the best possible use of the tree crop.

## Publications for Farmers.

The following publications of interest to farmers and others have been issued by the Agricultural department of the Federal government and will be furnished free, so long as they are available, except where otherwise noted, upon application to the Superintendent of Documents, Government Printing Office, Washington, D. C.:

Farmers' Bulletin No. 116.—Irrigation in Fruit Growing by E. J. Wickson, M. A., professor of agricultural practice, University of California, and horticulturist of the California experiment station. Pp. 48, figs. 8. A statement of the relations of irrigation to fruit production, and of irrigation methods as they have been demonstrated by Pacific coast experience.

Farmers' Bulletin No. 138.—Irrigation in Field and Garden. By E. J. Wickson, M. A., pp. 40, figs. 18. This bulletin discusses the subject from the standpoint of the individual farmer, and contains instructions on the determination of ditch levels, the measurement of small streams, sources of water supply and their use, the distribution of irrigation water, methods of applying water, the choice of an irrigation method, and the time for the application of water.

Bulletin No. 147.—Report on Drainage Investigation. By C. G. Elliott, drainage expert, irrigation investigations, office of experiment stations. Pp. 62, pls. 5, figs. 12. Price 10 cents. This is a report of the work done by Mr. Elliott during the year 1903. It includes discussions of plans for drainage near Fresno, Cal., in the Yakima and Abnank valleys, Washington; the Grey Bull valley, Wyoming; in the Missouri valley and in Hancock county, Iowa, and of drainage as a preventive of hillside erosion in Georgia.

## MOB CHINESE STORES

Mounted Police Called Upon to Quell Canadians.

## DUE TO FALSE MURDER STORY

Baseless Rumor That White Man is Wounded Arouses Fury of White People.

Lethbridge, Alberta, Dec. 28.—Because they believed that a prominent citizen had been murdered in a Chinese restaurant, 1,500 men raided the Oriental quarter late last night and left a week behind. Restaurants and laundries were smashed, doors and windows and entire fronts of buildings being reduced to splinters. The regular police of the town were powerless and a brigade of mounted police had to be called out to quell the riot.

It was just after 9 o'clock that the mob began to form. The story had got abroad that Harry Smith, one of the best known ranchers of the cattle district of which this city is the center, had been fatally wounded in a restaurant. Curiously enough, neither Smith nor any one else had been hurt, but even the police were misled by the tale and two Orientals were placed under arrest, charged with his murder.

An indignant mob gathered opposite the eating house and there was talk of lynching. Suddenly someone threw a rock, which smashed a front window, and in a moment the crowd was beyond control. Bricks and stones were used, and when the doors had been broken, the tables and chairs and dishes were smashed. The Columbia and Alberta restaurants were literally wrecked. What could not be conveniently broken by the few men who could get inside was passed out to the street by the mob in waiting, and there demolished.

At 10 o'clock a detachment of mounted police appeared and the crowd scattered. Hundreds of the rioters merely shifted the scene of their pillaging. Three blocks away, opposite the Arlington hotel, they cleaned out another Chinese restaurant and badly injured two Orientals who were captured within.

Mayor Galbraith, who had rushed to the scene when the mounted police were first called, delivered a speech asking good citizens to disperse. The crowd listened to him and to Magistrate Townsend, who spoke later. All possible damage having been done, the crowd went home.

## OLD DOCUMENTS FOUND.

Papers Taken From Lieutenant Pike Come to Light.

Mexico City, Dec. 26.—What is considered a very important historical discovery has resulted from the efforts of Dr. Horbert E. Bolton, the American historian, who is here engaged in research work under the auspices of the Carnegie institute of Washington. The discovery consists in the unearthing in this city of 18 of the 21 documents taken from the possession of Lieutenant Zebulon N. Pike of the United States army, by Spanish soldiers in 1806, when he was captured while making his famous trip up the Arkansas and Missouri rivers, visiting the Osage and Comanche Indians, at the instance of General James Wilkinson, then governor of Louisiana.

## Mexicans Left in Poverty.

Los Angeles, Dec. 26.—The action of the transcontinental railroads in discharging hundreds of Mexican or part Mexican laborers during the weeks preceding Christmas has given rise to a pitiable condition of poverty among this very numerous class of people. It is estimated that about 800 men in all were let out. Most of them have families, and nearly all were without money when discharged. It is estimated that about 500 abandoned Mexicans with their families are destitute in this city at the present.

## Find Bodies by Hundred.

Jaobs Creek, Pa., Dec. 28.—Rapid progress is being made in the removal of bodies from the Darr mine. All of the entries, except No. 27, have been cleared and a total of 124 bodies brought from the mine. A number of other bodies have been located and it is expected that they will be brought to the surface during the night. In entry No. 29, where the explosion apparently took place, numerous bodies were found. The pit cars were blown to pieces. It is said fully 100 bodies will be removed from entry No. 27, as yet unexplored.

## Turkey May Have Famine.

Boston, Dec. 28.—The American board of commissioners for foreign missions has received advice from the interior of Turkey showing unusually severe famine conditions. Bread is double its former price and other necessities are four or five times higher than 15 years ago. The British consul at Bitlis reports that several hundred persons in the Moush plain and Bularik districts probably will starve during the winter unless relieved soon.

## Telephones for Submarines.

Paris, Dec. 28.—Following elaborate experiments to prevent the recurrence of accidents to submarine vessels, the minister of the navy has issued orders that all submarines be fitted out with detachable telephone boats, which, in case of accident will permit of communication with the surface.

## Triumph of Roosevelt.

London, Dec. 28.—The Times in an editorial this morning discusses the prospect of peace in Central America resulting from the peace conference held at Washington, which it regards as a great triumph for President Roosevelt's diplomacy.

## FEUD ARISES IN NAVY

Brownson Resigns as Chief of Bureau of Navigation.

## COMMAND OF HOSPITAL SHIPS

One Sent With Battleship Fleet is in Complete Control of Hospital Corps.

Washington, Dec. 26.—Harmony within the United States navy bureaucracy seems to be in for a severe jolt. Open war already has been declared between the bureau of navigation and the bureau of medicine and surgery, the initial result of which has been the resignation of Rear Admiral Brownson from his position as chief of the former bureau, and coming just at a time when severe criticism is being aimed at the administration of the Navy department, the charges involving the bureau system in particular, the reaction may culminate in some radical changes.

Surgeon General Rikey, whose recommendation in favor of putting a medical officer in absolute command of a hospital ship was approved by President Roosevelt against the view of Admiral Brownson, throws down the gauntlet to the bureau of navigation in a formal statement issued last night. The surgeon general charges that the bureau of navigation has interfered in an unwarranted manner with the bureau of medicine and surgery, and to the extent of crippling its usefulness.

Comparatively trivial events sometimes lead to sweeping reforms, and, if there be defects in management, in naval construction and in methods of administration, the Roosevelt-Brownson-Rikey imbroglio is likely to be the means of bringing matters to a focus and causing remedies to be applied where needed.

It should not be forgotten that the president is as staunch a friend of the navy as the navy has, in considering the present controversy, which so materially involves himself. Popular sentiment naturally would incline the expert observer to side with the line officers in the conflict with the staff, because the line is the fighting contingent from which heroes most frequently are developed in days of war. On a siding against the line officers in the present case, the president may or may not be aiming his spear at the bureau system. He has taken a ground he thinks is for the best interests of the service.

## FLOUR OUTPUT SMALLER.

Minneapolis Statistics Show Effect of Financial Stringency.

Minneapolis, Dec. 26.—Flour shipments from Minneapolis for 1907 will fall short of the total shipped during 1906 by nearly a million barrels. This decrease has been apparently due to the financial stringency, as the figures for each month show that only in three months of the entire year have the shipments for 1907 exceeded those for the same month in 1906.

The number of barrels of flour sent out from Minneapolis by the various mills so far this year has been 13,825, 873 bushels for the corresponding period in 1906 there were 14,773,383 barrels shipped, a deficit of 147,788 barrels. Despite the recent financial stringency, the sales of flour in the country or for export did not suffer so much as was generally expected. The shipments for October this year were 1,449,802 barrels, against 1,553,067 last year. In November of this year the greatest falling off is shown with shipments of 1,067,970 barrels, against 1,318,618 a year ago. For the trading days in December up to the present, 679,271 barrels have been sent out as against 979,494 for the corresponding days last year.

## Editors Have Fight.

Denver, Colo., Dec. 28.—A warrant was sworn out tonight for the arrest of Fred G. Bonnie, one of the proprietors of the Denver Post, by ex-United States Senator Patterson, as the result of an encounter between the two men at an early hour this morning, during which Mr. Patterson was painfully injured. The encounter was the culmination of a newspaper fight which has been going on for some years between the proprietors of the Post and Mr. Patterson, who is the principal stockholder of the News.

## Wheels Turn Again.

Pittsburg, Dec. 26.—Christmas in Pittsburg and vicinity was made doubly joyous by the announcement that by January 6 all of the thousands of wheels of industry in the mills of McKeesport, Glassport, Duquesne and allied plants in the Monongahela valley would be in operation. Over forty thousand men who have been idle for several weeks will return to work. It is also said that other mills in the district will also resume, practically doubling the number of workmen employed within fifty miles of Pittsburg.

## Will Sing After Death.

Paris, Dec. 26.—There was a unique ceremony this afternoon in the suburban passage of the opera house. It consisted of depositing in a specially prepared vault a talking machine and a number of discs bearing records of the voices of the greatest singers of the 20th century. Tamagnic, Caruso, Scotti, Plancon, Patti, Melba, Calve and others are represented in the selection. At the end of a hundred years they will be opened and played.

## Great Triplicate Mill to Resume.

Newcastle, Pa., Dec. 26.—Ten of the 30 pot mills of the Shenango tin mills here will resume operations January 6 next. Ten additional mills will resume shortly after, and it is expected that the entire plant will be running full force before the end of January. The mill, said to be the largest tin plant in the world, has been idle since July 31, fully a thousand men are affected.

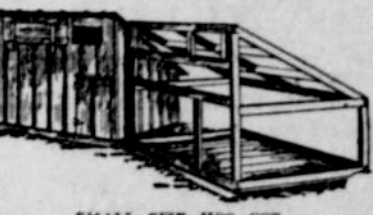


Portable Hog Cot for Hogs.

Following is the description given by the Wisconsin Agricultural Station of a valuable portable hog cot which will be found of use on the farm. The cot is six feet wide, eight feet long, six feet two inches high in front and three feet high in the rear.

The floor is built flat, with 2x4s as stringers, and the frame is held on the floor by blocks at each corner. The large sized house is provided with two doors in front and a temporary movable partition in the middle so that the cot can easily be adjusted to accommodate two lots of swine at the same time. On a level with the glass windows, there is also a drop window, preferably hung on hinges, fastened at the top for ventilation and sunlight.

The lumber required for the house is as follows: Twelve pieces, two inches by four inches, sixteen feet long, for frame. Four pieces, one inch by twelve inches, sixteen feet long, for roof and ends. Ten O. G.



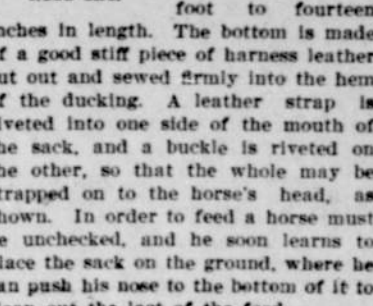
SMALL SIZE HOG COT.

battens, sixteen feet long, for sealing cracks between boards.

The total cost of material to build the cot with floor, door, and window complete amounts to about \$12.50. For neatness, economy, durability, and comfort to animals, this type of cot is excellent. Where it is desirable to keep a number of hogs in one lot the large size is preferable. The cot will accommodate from three to five mature animals and the large cot from seven to nine. Although the Wisconsin station has a large hoghouse with feed room, scales, etc., the cots have been found a convenient means of enlarging the facilities of the piggery.

## To Feed the Horse.

A common way of feeding dry horses and other street teams in the city is illustrated here. A sack is made out of good strong ducking of a circumference that will allow of its being pulled over the horse's nose and leaving sufficient room for him to work his jaws easily. This sack is anywhere from a foot to fourteen inches in length. The bottom is made of a good stiff piece of harness leather cut out and sewed firmly into the hem of the ducking. A leather strap is riveted into one side of the mouth of the sack, and a buckle is riveted on the other, so that the whole may be strapped on to the horse's head, as shown. In order to feed a horse must be unchecked, and he soon learns to place the sack on the ground, where he can push his nose to the bottom of it to clean out the last of the food.



NOSE BAG.

For the farmer who takes a day to town these sacks will be found very handy, as a horse can be fed with them without any waste of grain providing he is unchecked. A little caution should be used in placing the sack on a horse not accustomed to it, as it may cause him to jerk back. However, after he has once eaten a meal from it he can be considered well broken in.—Iowa Homestead.

## Cowpeas Hay.

H. M. Cottrell, after years of experience and observation, says that cowpea hay is nearly equal to alfalfa in feeding value, and contains nearly one-half more flesh and milk making material than clover hay. It is rich in the mineral matter that is needed in forming bone, blood, flesh and milk. These qualities make it especially valuable for feeding growing cattle and pigs, dairy cows and fattening steers and hogs. The cowpea enriches the land on which it grows, the same as alfalfa, clover and soy beans. It makes hard soils mellow and aids in holding loose soils together, and stands dry weather well.

## Breeding Tip for Eggs.

The Maine experiment station has discovered a hen that laid 250 eggs in a year, counting from Thanksgiving day to Thanksgiving day. This hen came from a selected family of 200 egg layers as the original foundation. In the same family there were a number of hens that laid over 240 eggs in a year.

## Conditioners for Hogs.

The most valuable "conditioners" for hogs are ashes, salt and cowpeas. A big breeder says he once a week rakes up the cobs in the feeding yard and burns them, thus giving the swine some charcoal; occasionally he hauls in a load of coal ashes, and salt and cowpeas are mixed with wood ashes and kept in a trough where the hogs can get at them at any time.

## Butter Making.

Poor butter is caused by overchurning, oversalting, overworking. From the start the milk is tainted. The cows should be well fed; the hands of the milker should be perfectly clean; the milk should never be set where there are bad odors to taint it, and if the cream is kept too long the taints will be intensified.

## Duck Eggs.

"Duck Eggs Newly Laid" is a sign which graces the window of a City shop in South London.

## Fox Lousy Stock.

Dip or wash the animals with a 1 or 2 per cent water solution of a tar disinfectant, such as kresol. A convenient way to apply the remedy in the larger animals is with a spray pump, and in sheep or hogs by dipping. Whatever method is used, the coat and skin must be thoroughly wet with the solution. After treating the herd, the stables, sheds or sleeping quarters should be sprayed with about a 2 per cent water solution of the disinfectant, or white-wash may be used instead. This is necessary in order to prevent reinfesting the herd from the surroundings. If there is much litter about the yards it is advisable to move the herd to other corals. Tar disinfectants in 1 or 2 per cent solutions do not destroy the eggs or nits, hence it is necessary to treat the animal again in ten days or two weeks. Stockmen sometimes ask if the feeding of sulphur to lousy animals will not drive away or destroy the lice. The feeding of small doses of sulphur will do no harm, nor will it help in getting rid of the lice, and it cannot be considered a remedy for this class of disorders when used in this way. Sulphur is effective, however, when used externally, and the addition of four ounces to every gallon of tar disinfectant solution used greatly increases the effectiveness of the remedy.—Field and Farm.

## Footfall and Pigweed.

Both these weeds are annuals; that is, they grow from seeds each year or season and the plants die after ripening seeds. The way to keep them down is to prevent the plants from ripening seed and making sure that there are no seeds in the grain sown upon the farm. Footfall is troublesome, because it springs up in cultivated fields after the crops are laid by, and then it comes up in stubble and in meadows and pastures. Late cultivation of corn fields, and mowing the stubble, meadows and pastures to keep seeds from forming, is the way to attack this weed. Judging from the way these weeds spring up, whenever conditions are favorable, there must be great stores of them in cultivated fields—showing the seeds are long-lived. Pigweed quickly springs up in corn or potato fields, after cultivation has ceased. These seeds ripen from August 13 to November 1, so it will take vigorous measures to get rid of them. In fact, the only way to get rid of these weeds is to cut them down before seeds mature. If a crop of them is left to mature in corn fields, and then the seeds plowed under the coming season, you have stored away enough seeds to bother you for the next ten years.

## Farm Management.

Economy is wealth. Extra and unnecessary expense is a millstone around the neck of many who otherwise would succeed. Discharge the unprofitable employe. Stop every leak of unnecessary expense. Money saved is money made. Money invested in improved machinery is economy. Money invested in the best seeds and appliances is economy. Time wasted, labor wasted, is extravagance.

A successful farmer says he does not have to inspect a farm to see whether it pays or not. "Just give me a chance to look into the barn. The condition things are kept in is all the good I want." The barn is a telltale on the careless or wasteful farmer. In fact, economy in farming begins at the barn in the proper handling of food, caring for the manure, care of tools and harness and the care given to the live stock stabled there. There is always a best way to do things, and the best way is generally the paying one.

## Money in Peanut Raising.

Texas farmers are getting 30 cents a bushel for peanuts, and with a yield of from fifty to sixty bushels to the acre are calling it "big money."

The acreage in peanuts for another year will be large, as this price will bring more than cotton at 10 cents per pound.

The farmers of Burmah have recognized the commercial value of the peanut, and have this year increased the area planted to 78,743 from 37,110 acres last year, and it is reported that a much larger area will be planted to this tuber next season. Thus far most of the peanut planting is done in the provinces of Magwe and Myingyan.

## Barn Door Prop.

I have a few large barn doors that are hung on hinges, and when I open them I have always had to get a stick



CONVENIENT BARN DOOR PROP.

or something to keep them open; so I thought of this little thing. I took a 2x4 scantling and put a hinge on the end as shown in the cut. Then it is always with the door.—Exchange.

## Sawdust and Soil.

Prof. W. S. Massey says sawdust from resinous pine decays slowly in the soil, and will sour the land when decayed. Even when used for bedding in stables the manure is not worth half as much as that with ordinary bedding. Look about the remains of sawdust accumulated about abandoned mill sites that are common in the piney woods, and you will see that it takes a long time for any vegetation to start where sawdust has been scattered.

## Work of Earthworms.

Earthworms perform excellent service in enriching the soil. According to Darwin, on meadow land earthworms eject sufficient digested material to greatly change the characteristics of the soil, amounting to as much as eighteen tons per acre in some cases, and containing over one-third of 1 per cent of nitrogen. They also open the soil and permit the better access of water, air and warmth.

The grasshopper jumps about 100 times its own length.