#### THANKSGIVING.

Suddenly over the border That shelters night from day The sun had dropped and as quietly Sped on its ceaseless way. But in the west there lingered In dapper hues and fair. A twilight which awakened The watcher's heart to prayer.

God, for beauties shown me, The mauve, the crimson and gray, That herald the advent of evening And tell of departing day; For clouds tinged with gold and silver, For heaven's lanterns fair, For all of earth and its wonders, I offer this, my prayer.

I thank thee for friends who are loyal, For dear ones, for love that is true, For home and comfort it brings me When day and my labors are through; For victories won o'er the tempter, For strength of my body of clay, For peace in our land of freedom, And hope-for the coming day.

#### DEACON PEPPER'S TURKEY.

-From the Chicago Tribune.

"Em," called old Mrs. Tatem from her bedroom adjoining the kitchen. "Em, come here. I want to talk to you.'

"Well, ma?" said Em wearily, sinking into a chair near the window, which overlooked the yard.

"Ain't you heard from the company about the dividend on that gas stock? asked the pale, ill old woman.

"Not a word," admitted Em faintly.
"Lordy me! I kinder wish your pa
hadn't put all his money into Donaldsville gas steel." Willed ville gas stock. Why, he even mortgaged the house to buy more stock," went on Mrs. Tatem. "It was all right as long as they paid dividends, but now—why, it's six months overdue!"

"You're a wonderful manager, Em, to make that last money stretch over so many months. I suppose you got some left?"

Em thought of her worn purse, which contained one copper cent. "Yes, ma, some," she replied, getting up and smoothing the big pil-

Em Tatem stood by the kitchen window looking out across the yard, now brown and bare, swept by November winds. She was a sweet faced, pablue eyes added to her charms. People said that Em Tatem had faded dreadfully the past year, but they did not guess it was because Em was Tatem. slowly starving herself so that there would be enough for the beloved mother.

stock!" she murmured, with tears Then, suddenly filling her eyes. There came a knock said in a frozen voice: at the door. "Ma wants to know if you can spare a dozen eggs," said a little girl. Em went into her pantry and counted the eggs in the blue bowl. There were exact fourteen. She would save two for her mother, and with the 18 cents in hand sie could by some meat. Em did not dare tell her mother that there now remained in the poultry yard one lone Plymouth Rock hen.

Em put the eggs in the girl's bas-

"How is your mother, Mary?" she

"She's pretty well, Miss Tatem.
She's awful busy, though. You know tomorrow's Thanksgiving. And, oh, Miss Tatem, she says she'll pay you as soon as she gets some change." And Ma: y ran down the path. Em stared after the child with hard,

resentful eyes. "It's wicked, downright wicked!" she cried fiercely. "They've all got money and food and everything. Tomorrow will be Thanksgiving day, and not a thing to eat! I'll have to

kill Eliza. Maybe ma could eat her if she was roasted with sage dress-Em went down to the chicken house where the solitary hen, Eliza, had

wandered disconsolately about. "It will seem like killing a friend to harm Eliza," thought Em. "Where is the critter anyway? She's laid ner

egg this morning, and-oh, Eliza!" Em's surprise and grief were justified by the sight of poor Eliza's dead body within the nest. Eliza had died at her post of duty. After Em Tatem had given Eliza's

corpse decent burial she hurried into the house and prepared a poached egg and a cup of tea for her mother's dinner. After the meal Mrs. Tatem dozed off into her afternoon nap.

Em locked the doors and went up the steep hill back of the house and entered the little grove of locust trees that separated her propery from Deacon Pepper's farm. She approached the boundry fence and looked over into the deacon's lot. Here had wardered Deacon Pepper's fine flock of turkeys. All had been sold save two, the giant of the flock and a small hen turkey which no one wanted. Of course the deacon would kill the gobbler for his own table. Although he was a bachelor, he often entertained his many friends and relatives.

"I've got to look out for ma, and they can't want that little hen-and I hope I'll be forgiven, but I can't let ma die!" With these mingled prayers and excuses Em drew from her pocket a handful of corn and tossed it toward the turkeys.

They came running toward her, the gobbler greedily pushing his small companion out of the way. Em threw another handful and another, gradually luring the birds toward the fence. On her side she had spread an old fish net on the ground.

But, to her dismay, it was the bronze gobbler which came to her net. vania decreased considerably last The little hen wearied of the unequal month, but automobiles are keeping chase for grains of corn and wandered up their worst record.

off. Presently Em Tatem was muffling | SCIENCE IS PROBING the violently protesting voice of the gobbler with her knitted jacket while she dumped him, his feet still entangled in the net, into an empty sack.

It was Thanksgiving morning. In the darkest corner of the Tatem cel-lar was a heap of bronze turkey feathers. Up on the hillside was an acrid smell of smoke from the bonfire where Em Tatem had cremated other evidences of her crime.

A delicious smell of roasted turkey pervaded the Tatem house.

Em moved a little round table to her mother's bedside and spread a snowy linen cloth. There were a glass of grape jelly, some light biscuits, a dish of boiled rice, a pot of fragrant tea and—the turkey.

"Em Tatem," gasped her mother as Em, pale and smiling, sat down at tawhere did you ever get that turkey?"

"Never mind," evaded Em mysteriously. "All you've got to do, ma, is to enjoy it."

"You're not eating a mite, Em," protested Mrs. Tatem after awhile. 'That turkey's better than the one your pa bought from old Deacon Pepper for our silver wedding anniversary. That was a delicious turkey. Old Deacon Pepper always did have fine turkeys. When Sadie Denton was here yesterday she told me that young Deacon Pepper has raised and sold a fine flock. They said he made \$75 clear off the whole lot." "Yes," murmured Em.

"I never hear you speak of Ned Pepper, Em."

"No, ma." Mrs. Tatem looked shrewdly at her daughter. It was something of a shock to her to discover that Em looked sick. "Like enough she's worked herself to death sewing for Mrs. Meek, so's she could buy the turkey," she told herself remorsefully.

"There, Em," she said cheerfully, "that's the best Thanksgiving din-ner I ever ate in my life!"

While her mother was taking her after dinner nap Em cleared away the dinner dishes and afterward went up the hill to the locust grove. She was heartsick and weary, and she threw herself down on the dead leaves and, putting her hands to her face, sobbed softly.

From the Pepper homestead came trains of music. There was the sound of laughter and presently a man's voice singing "Annie Laurie." Long lows. "I'm going out to get some dinner for you. Could you eat an egg?"

"Yes, Emmy, I think I could relish an egg."

Em Tetem stood by the kitchen win. and drifted away to singe his wings at other flames.

"I wonder what he would say if he knew I was a thief, and I've got to tient looking woman of thirty-five, and her still abundant fair hair and A step sounded on the frozen ground and a big bronzed man with troubled gray eyes leaned over the fence and looked down at poor Em

"Em," he ventured after awhile. Em jumped up, her blue eyes drowned in tear. "Ned—Ned Pep-"If it hadn't been for the gas per!" she cried in a frightened tone. ing nersell, she

"I want to tell you something. Deacon Pepper-no-no-please don't interrupt me. You missed your big turkev. didn't vou?"

He nodded. "It disappeared."
"You don't know where it went!" she declared tragically.
"Oh, but I did, Em," he corrected

"I stole it, and I came up here to confess to you"-

"You needn't say a word unless you want to, Em,' he interrupted quickly. "I happened to be up repairing the arm on the windmill, and I had my field-glasses along. I always like to glimpse the distant view when I'm up on the tower, and I happened to be looking through the glasses whenthe turkeys-went up to you-and the gobbler didn't come back again; so I knew that you had it, Em, and I guessed you needed it badly; so the Story No. 3.

instant you took him I made you a present of him; so he was yours after

Em poured out the story of the delayed dividends and of their pinching poverty and how she had stolen the turkey for her mother. "I couldn't touch a morsel of it," she shuddered. Ned listened and offered to write to the gas company concerning her mother's stock. He was a director in the Donaldsville bank, and his name would give weight to the inquiry. "You are too good to me," faltered Em looking very pretty and animated

with the pink in her thin cheeks. "I couldn't be too good to you, Emmy," he said soberly, his eyes fixed on the distant horizon. "If I'd had my way years ago all that I had would be I wish you had cared enough."

"Ned," she protested in a frightened tone, "I did care—always. I thought you didn't." Ned's eyes flashed dangerously. "Then—he—lied!" he growled. And at the wonderment in her eyes he added, "Some one who is dead now told me that you couldn't care for me, and

I-fool-believed!" There was a long silence. Ned stared straight ahead. Em's careworn face had lost its anxious lines. "It's never too late to be happy!" she

whispered softly. Mrs. Tatem is never tired of telling that the big bronze turkey was Deacon Pepper's engagement present to Emmy. And Emmy and her husband always exchange understanding smiles.-By Clarissa Mackie.

-Do you put away the farm machinery when you have finished using it? A good tool shed pays for itself in a short time if used. In every community an economic tragedy is being enacted in many farmyards.

Machinery stands helplessly exposed to the elements when a few minutes of time would see it under cover.

-Industrial fatalities in Pennsyl-

FOR THE ATOM. Discovery of the atom is more important today than the discovery of America was in 1500, and will have greater consequences, declares Dean Gerald L. Wendt, of the School of Chemistry and Physics at the Penn-sylvania State College, discussing the growing importance of the atom and what it means to industry, in the current issue of Nation's Business.

Great industries have been founded already on the discovery that the atom is being turned into a scientific wonder worker. It has completely revised scientific philosophy of nature; offers numberless immediate possibilities to the electrical industries, and has opened an entirely new conception of chemical recations, ac-

cording to Dean Wendt. "In the atom is the focus of light and radiation, electricity and energy and matter and chemical reactivity; by mastering the atom we matser matter, too," is the conclusion of the Penn State chemistry and physics

It appears that others than modern scientists—industrial and political leaders among them—are showing more interest in the atom each day, because the atom is the basic unit of matter and beacuse it is a unit of en-

"If anything is more important to industry than the materials in which it deals it is the energy that makes it go," declared Dean Wendt. "This tiny thing has insides. Chemists used to think of it as ultimate, as indivisible, the last word is smallness. Like a billard ball, its insides were unknown and ignored. It was excusable since it takes about a billion of them, side by side ,to make an inch.

"The atem doesn't seem as small as it once did because it is now fully as complicated as the solar system and has its own miscroscopic astronomy. The sun is a tiny speck compared to the enormous orbits of the planets which revolve around it. So also what once was thought to be the surface of the atom turns out to be only the orbit of some of the electrons which travel around a very tiny nuceleus. Most of it, in fact, is empty.

"The nucleus contains the 'matter,' whatever that is—no one knows much about it. But the electrons revolving about in the distant outer parts of the atom are well known and impor-

Mercury misses out in being gold by the absence of only one of these planets, the Penn State scientist points out. Gold has seventy-nine of these miniture plants and mercury has eighty. It's quite tempting to pull out one "planet" and make gold out of quicksilver, but no one has succeeded which is not saying that it can't be done, he declares.

"Cheerfully I stake my job as prophet on the prediction that it will be done within a few years, though perhaps never cheaply or in large quantity," Dean Wendt continues. "But suppose we do make gold from

quicksilver! It would be wiser and no attention to yeggs who each day brought another pound of TNT and placed it under the foundations of the United States Treasury than it is for business to ignore what the research laboratries in atomic science are doing. When the atom can threaten to wipe out the gold standard over night several of us who do not attend the Institute of Politics or the Institute of Chemistry have a legitimate interest in it."

Then, turning his attention to realities, Dean Wendt explains how the electrons make heat in the radio the filament and boil off other electrons to operate the loud speaker. He states that those who developed radio had to know the electron and atom intimately. Similarly the electron tube has entered the field of electric power and predicts its use to transform direct electric current to aternating and vice versa.

Only a year ago the Penn State scientist predicted the transmission of vision by radio, when the term "television" had not been invented. Now it is being done, and like the radio, its heart is the electric tube. An electrical "eye" sorts cigars as to color and ball bearings as to perfection, the latter, a process patented by the University of Michigan. The same principle is used in one patent for talking movies. It appears that innumerable new processes as time and labor savers are coming through the harnessing of the electron.

# Know Your Dog Law.

The word "OWNER" when applied to the proprietorship of a dog, shall include every person having a right of property in such dog, and every person who keeps or harbors such dog or has it in his care, and every person who permits such dog to remain on or about any premises occupied by him.

It is unlawful for any person to own or keep any dog six months old or over unless such dog is licensed, and unless such dog at all times wears the

collar and tag.

License and tag can be procured direct from the county treasurer or through a justice of the peace, alderderman, magistrate or notary public. License fee—Male dog, one dollar,

spayed female dog when certificate of veterinarian or affidavit of owner is prodced, one dollar; all other female logs two dollars. County treasurer allowed 10 cents additional. Justice of the peace, alderman, magistrate and notary public allowed 15 cents in addition to license and county treas-

It is unlawful for any person to place any dog button or any poison of any description in any place, on his own premises or elsewhere, where it may be easily found and eaten by

dogs.

It is the duty of police officers to kill any dog which is found running at large not bearing proper license

found running at large unaccompan-

Police officers mean any local police or constable.

Any person violating or failing or refusing to comply with any of the provisions of the Dog Law is liable to fine of not less than \$5.00 nor more than \$100.00 or 30 days in jail, or

Hunters Should Study the New Game Laws.

Following is the game law now in force in this State. Dates given denote the time in which particular game mentioned may be killed. Deer (male with horns having 2 or more points to the antler), bull elk (with 4 or more points to 1 antler),

Bear (over 1 year old), Nov. 16-Raccoon, Nov. 1 Jan. 15.
Hare rabbit, squirrels (black gray and fox), Nov. 1 Nov. 30.

Dec. 1 to Dec. 15.

Red or pine squirrel, Nov. 1 Aug. Ruffed grouse, male ringnecked pheasant, quail (bobwhite), and woodcock, Nov. 1-Nov. 15.

Duck, goose, brant, coot (mud hen), and gallinule, Oct. 1-Jan. 15. Cow elk and calves having less than 4 points to antler; doe, fawn, bear cub under 1 year of age; wild turkey, Hngarian partridge or quail; pheasant hens, dove, swans, wood duck, eider ducks, reedbird, auks bitterns, little brown and sand-hill cranes, grebes, guillemants, gulls, jaegers, loons, nurres, petrels, puffins, shearwaters terns and all shore birds ex-

cepting woodcock and Wilson snipe or jacksnipe. Game: Nonresident, \$15. Issued by commission of county treasurer. Resident, \$2; through justice of peace, magistrate, or notary public, \$2.15. Licenses not issued to minors under 14 years of age, and minors between 14 and 16 must furnish written consent of parent or guardian. Licensee

required to wear tag displayed on middle of back. Resident citizen and members of family or employees residing upon dy. and cultivating land in the State as either owned or leased may hunt during open season on such land and, with the consent of owner, on adjoin-

ing land with license, fee \$1.

Licensed hunters, within 30 days after expiration of license, must report amount of game killed.

Aliens not permitted to hunt or be possessed of dog or fire arms. One deer (6 to party camping or hunting together), 1 elk to hunting party), 1 bear (4 hunting party), 30 rabbits, 15 hares, 20 squirrels, 25 quail (combined), 15 ruffed grouse, 6 male ring parted phasesparts, 20 woods. male ring-necked pheasants, 20 woodcock, 60 ducks, 30 geese, 30 brant a season. Five rabbits, 3 hares, 6 squirrels (black, gray, fox), 8 qail (combined), 3 ruffed grouse, 2 male ringneck pheasants, 4 woodcock, 5 geese, 15 ducks, 5 brant, 20 Wilson snipe, 25 coots, 25 sora, 25 in all other rolls and gallinules a day. Possession rails and gallinules a day. Possession of maigratory birds permitted during first 10 days of close season; other st 30 days thereof.

Export of all protected game taken in State prohibited; provided, a nonresident licensee may take out with him on same conveyance 2 days' limit of game except elk. Small game must be accompanied by owner, and if concealed must be tagged to show name and address of owner, county where killed, and number of each species in package. Large game may be shipped by express when plainly marked to show name and address of owner and county in which killed. Specimens of game legally taken may be shipped to a licensed taxidermis for mounting, but shipment of game by parcel post prohibited, except that skins of raccoon, bear and trophtes to licensed taxidermists may be so shipped, if marked to show contents, but no such shipments may be made to points outside the State without a

Game taken outside of State and legally exported may be possessed at any time, except that migratory game birds may be possessed only during open season where taken and first 10 days of closed season.

# Reveals Secrets of Better Ice Cream.

Better ice cream may well be expected by consumers throughout the country following the use of a new Manual for Ice Cream Makers, written by C. D. Dahle, associate professor of dairy manufacture at the Pennsylvania State College, it was said here today. The book has just come from the press, and much of the material in it is based upon experiments performed here at Penn State. Constant changes occurring in the ice cream industry and the demand for information regarding the manufacture of ice cream prompted he manual.

Professor Dahle explains that no definite composition can be given for ice cream. The United States government recognizes plain ice cream as containing 14 per cent. of butterfat and nut and fruit ice cream as containing 12 per cent. of butterfat. Most States have their own standards which demand from 8 to 14 per cent. butterfat.

Among the other main constituents of ice cream, he mentions serum solids, sugar, gealtine, and flavor. The author tells how to prepare the mix for freezing, how to standardize the ingredients used, and gives a large number of formulas for ices and sherberts and for various flavored ice

# Real Estate Transfers.

Susan A. Jacobs, et bar, to Frank Confer, et ux, tract in Howard; \$1,100. Francis Zerby to Pearl Barger, tract in Gregg Twp.; \$500. Philipsburg Cemetery Association to William Hessong Sr., tract in Philipsburg; \$38.40.

Elmer Breon, et ux, to John Gala-

FOR AND ABOUT WOMEN.

#### THANKSGIVING.

Praise God for wheat, so white and sweet of which to make our bread! Praise God for yellow corn with which

His waiting world is fed! Praise God for fish and flesh and fow He gave to man for food! Praise God for every creature which He made and called it good!

Praise God for winter's store of ice, praise God for Summer's heat! Praise God for fruit trees bearing seed; to you it is for meat! Praise God for all the bounty by which

the world is fed! Praise God, His children all, to whom He gives their daily bread! -By Edward Everett Hale.

-Tradition says that Thanksgiving isn't Thanksgiving without cider; it may be served all through the dinner and the supper or after these meals, and it may be served hot or cold. Mulled cider is made by boiling the cider with a little sugar, brown sugar sometimes being used if the flavor is liked, with whole cinnamon and cloves; it should boil fifteen minutes and be served very hot. If the cider is rather new, add sugar cautiously, as it may already be sweet enough.

Cider jelly is a pleasant novelty for Thanksgiving dinner. This is made by boiling a quart of cider with a stick of cinnamon, the juice of a lemon and a small amount of sugar, depend-ing on the sweetness of the cider. Dissolve a tablespoonful of gelatin in cold water and pour the hot cider over it, strain into a mold and allow it to stand over night.

#### THANKSGIVING FAVORS.

-An "early settler" with a turkey in his hand and with enough embonpoint to accommodate many bonbons, is one of the Thanksgiving emblems encountered. This sells for 25 cents. Basted turkeys which delay culinary lore by a stuffing of candies.

A paper coop from which the head, tail and wings of a turkey project provides hospitable quarters for can-

Footballs continue conspicuous in the offering of Thanksgiving favors, and may be had at various prices. -For those persons confined to their rooms, but whose condition al-

lows of their eating a moderate Thanksgiving dinner, it may be served more attractively in courses on trays than all massed on one tray at the same time, gaining in zest by being a series of surprises. Heat a bouillon cup by letting hot water stand in it while you quickly

boil the soup from a small can, to which add a good shake of celery salt and other preferred seasonings. Toast one cracker in the oven. Cover your smallest waiter with a pretty doiley; place on it the cracker laid on a dainty bread-and-butter plate, the cup of bouillon on a fine breakfast plate, a thin tumbler of water with a fresh chrysanthemum lying be-side it, and serve, having placed the

large napkin under the breakfast The next tray should be carried up and set down outside of the invalid's in this State. room till the previous one is brought out. On it have a small platter containing what looks for all the world like a Liliputian tuurkey, beautifully browned, stuffed and garnished with ty. parsley, and which is, in reality, plump partridge or a squab. To go with this there is a spoonful of cur-

rant or grape jelly. But as this is posing for turkey, have a ilttle mold of cranberry jelly turned out on a very small saucer, and on a hot plate, covered, a slice of sweet potato that has been baked in the pan with the little "turkey," with some of the brown gravy on it, a tiny ball of creamed white potato that has been browned in the oven and has a sprig of parsley stuck in it and a helping of stewed tomatoes with a bit fied him for membership in the Key-

This larger tray should first be with a handsome napkin. covered Garnish the edge of this all round with green celery tops, having a crisp

white stalk lying beside a salt cellar. With this a small wineglass of claret, sherry or champagne would be appetizing and helpful, but if the invalid is opposed to wine, surprise and please her with a glass of beady sweet cider, for this will go delightfully with her "turkey" and vegetables.

After this carry up a small tray with a glass sherbert cup filled with orange sherbet, and on a small plate a crisp little lettuce leaf with mayonnaise and a cheese sandwich made with small crackers.

On the last tray carry up a little old-fashioned "saucer pie," such as the invalid had made for her in her childhood, a pumpkin pie, and with it a mere bite of preserved ginger and an after-dinner cupful of clear coffee. That will be enough for a convalescent, but not too much, as only a small

portion of each dish is served. If the pmpkin pie is prohibited a tapioca pudding, cooked with apple and baked in a saucer, with meringue on top, is a great invalid's dish. But better than either of these would be frozen custard in the form of tiny pumpkins.

In the Woman's Home Companion Fannie Merritt Farmer, cookery editor of that publication, presented a number of November recipes, among which is the following for pumpkin

"Mix two-thirds cupful of brown sugar, one teaspoonsful of cinnamon. one-half teaspoonful ginger and one-half teaspoonful of salt, and add one one-half cupful of steamed and strained pumpkin, two eggs, slightly beaten, one and one-half cupfuls of milk and one-half cup-ful of cream. Bake in one crust."

# THE BASIS OF THANKFULNESS.

-The unqualified acceptance of life, with all its mystery and pain, all its labor and weariness and yet with all it sweetness and joy and all its latent tag.

It is the duty of police officers to Ellen N. Heckman, et al, to A. C. be the basis of true grant take up and impound licensed dogs Confer, tract in Gregg Twp.; \$2,600. great theme for thanks. potentiality—that is and forever must be the basis of true gratitude, the one

### FARM NOTES.

-Make an analysis of your crop yields with the idea of determining why your yields are low or high, and try to improve them another year.

—Remember that the flock is half wintered if it goes into winter quarters in a thriving condition. This means keeping the sheep on good pasture and feeding a little grain where pasture is short, say Pennsylvaia State College poultry specialists.

—It has been customary among or-chardists to take out undesirable trees and set in new young trees in their places and to set in new trees where others have died. While it seems to work out very well in many cases it is not a very desirable practice when the old trees are quite thick and very old. It has not been proven that the decaying roots of an old tree will seriously interfere with the growth of roots of a new tree but in some

cases this may be true. If the old trees which stand are large and rather close together the roots of the old trees will interfere with the feeding roots of the new trees, and they may not thrive well. The roots of most trees have about the same spread of roots as they have of branches, and unless there is a good sized opening between the branches of the standing trees it would probably not be satisfactory to expect newly set trees to thrive well. If old trees are far apart it would probably be satisfactory to set in new trees.

-With the approach of cool weather which marks the beginning of the dry or barn feeding priod, the dairy-man, should be interested in knowing those cows which will return the greatest profit over the feed consumed. Each animal fed is a market for the grain and roughage grown on the farm. Nearly five million tons of hay have been stored in the barns of Pennsylvania's 200,000 farms during the past summer and a large portion of this hay will be marketed through dairy cattle for on 8 of every 10 of these farms some dairy cows are kept.

Some cows through their milk production, return only \$10 a ton for the hay they eat, others return \$20 and through some the dairyman may market his roughage for \$30 per ton. The same statement holds true for sitage and the farm-grown grains, because dairy cows differ in their ability to convert products unsuited for human consumption into one of the most

highly prized of our human foods.

The Babcock test and the milk scales are the judge and jury in determining a cow's production record. The dairyman himself may weigh and test the milk from each cow or, in cooperation with his neighbors, he may organize a cow testing association and employ a man to keep the records on his herd.

-An average increase of 150 bushels per acre is credited to spraying by E. L. Nixon, well-known potato disease specialist of the Penn-sylvania State College. He asserts that this record is a fitting culmination to 10 years of spraying practice

One of the most spectacular gains due to spraying is that established in a demonstration on the farm of John R. Bachman in Northampton county. Unsprayed rows in his 40-acre field yielded at the rate of 229 bushels per acre while sprayed rows beside them produced 657 bushels per acre. This was the first year Bachman had sprayed and he is convinced that the 428 bushels increase is an exceedingly lucrative return on his investment of labor and spray materials. His whole field is running over four hundred bushels per acre. Before this year he was satisfied with 200, but never again.

A measured acre in the Bachman field grew 621.4 bushels, which qualiof onion cooked in them, Southern stone 400 Bushel Potato Clb. There are 41 members of the club repported so far this year, and indications point to a record membership of about two hundred. This will double last year's record mark of 97.

Nixon states that spraying shows up well this year because of the early severe epidemic of late blight which struck all fields not protected by applications.

-The Department of Agriculture predicts the apple crop this year to be the smallest since 1921, and excepting that year, the smallest in 20 years. July 1st the prospects were that the total crop would be about 26,000,000 bushels. Early frosts have reduced the expected total by 2,000,000 bushels.

"Apple scab was the cause of serious losses in many orchards last year. In a number of instances trees were completely defoliated by this disease. The fact that the fungus causing the disease over-winters on the fallen leaves makes it a serious menace

again this year.
"In the old leaves, scab forms back spore-cases smaller than the head of a pin. In the spring spores mature in these and are discharged into the air during periods of rainy weather. Falling on the blossoms or young leaves, the spores germinate and produce the

typical scab spots.
"The fact that the spores are mature is of extreme importance to the grower. He should be prepared to apply the pink-bud spray at once, especially in the southern counties of the State. In making this application the relation of rainfall to the discharge of the scab spores must be kept clear in mind. Without rain there will be no spore discharge. For this reason it is very essential that the first application be made before rather than after rainy periods. If made after the rain the treatment will be too late to accomplish the best results. The grower who applies his pink application before a rainy period and then maintains a protective coat of spray material will have no difficulty in the control of scab."

-Subscribe for the "Watchman."