

Democratic Watchman

Belleville, Pa., September 20, 1929.

A HAND ON YOUR SHOULDER.

When a man ain't got a cent,
And he's feeling kind of blue
And the clouds hang dark and heavy
An' won't let the sunshine through
It's a great thing, O my brethren,
For a fellow just to lay
His hand upon your shoulder
In a friendly sort o' way.

It makes a man feel curious
It makes the tear drops start,
An' you sort o' feel a flutter
In the region of your heart—
You can't look up and meet his eyes;
You don't know what to say
When his hand is on your shoulder
In a friendly sort o' way.

Oh, the world's a curious compound,
With its honey and its gall,
With its cares and bitter crosses—
But a good word after all.
An' a good God must have made it—
Leastways, that's what I say
When a hand is on my shoulder
In a friendly sort o' way.

James Whitcomb Riley.

THE LOST COAL OF PENNSYLVANIA.

The wasting hand of time has robbed Pennsylvania of from one hundred to two hundred and fifty times as much coal as has been mined and lost in the State. The world thinks of Pennsylvania as a great coal State. So it is, one of the greatest in the world. Starting with only 2 per cent of the total coal of the country, or 1 per cent of the coal in the world, Pennsylvania has robbed itself for a hundred years to supply the world with coal, until in place to-day the cupboard begins to look bare.

Without crying over spilled milk, or worrying over stolen horses, there may be some satisfaction in knowing that at one time Pennsylvania was the proud possessor of possibly one-half as much coal as is known to-day in the whole United States, or one fourth as much coal as is known to-day in the whole world.

Here are the figures in round numbers and in short tons: Coal in the world, 5,137 billion; United States, 423 billion; Pennsylvania, 100 billion; mined out and lost in Pennsylvania, 10 billion; once existed in Pennsylvania 1000 to 2600 billion.

How do we know how much coal was originally in Pennsylvania? The coal beds of Pennsylvania were laid down in great swamps about 250 million years ago. They and the enclosing rocks, called the "Coal Measures," constitute the upper layers of 30,000 to 40,000 feet of rocks that had been accumulating for 400 million years in what is now Pennsylvania. Soon after Coal Measure time the Coal Measures and other rocks were caught in a great crush that squeezed the beds into vast, mountain-like folds, some of which rose to more than four miles above sea level. During the next 150 million years these folds of rock and coal were gradually worn down to a plain, at that time but little above sea level, but since lifted to a position a little above present flat mountain tops, which are remnants of that plain. The coal of Pennsylvania to-day is only such coal as happened to lie in the bottom of deep folds, folds so deep that the coal in them was below the level of the old plane of erosion and thus was preserved during that long time of carrying away. It was during this time (Mesozoic era) that Pennsylvania lost the bulk of its coal.

The coal fields of Pennsylvania to-day consist of a big corner of the original mass lying in southwestern Pennsylvania and a few outlying patches preserved in the bottom of deep folds. It is clear that the original coal fields of Pennsylvania included all of the State from the western boundary to a line a little east or south of the anthracite fields, a total area of about 39,000 square miles, and possibly much more. As we have no proof of greater extent we may let it go at that. If, however, we spread the more highly folded parts of the rock out flat our original area would be increased to possibly 44,000 square miles.

The quantity of coal that originally lay in this great area is computed by multiplying the area in square miles by the average thickness of coal in feet and that by 1,200,000 (short tons for each foot of thickness per square mile). The thickness at any place is obtained by adding the average thickness of the several beds using thousands of measured sections. Because of the difference in total thickness in various parts of the field, the whole field is divided into segments and an average thickness computed for each segment. In doing this account has been taken of certain facts: (1) That nowhere do we have the top of the Coal Measures. Everywhere in the coal fields the highest rocks are still coal bearing. This may not be used in the calculations, but may be assumed to balance any slight over-estimates in the figures from known data. (2) The most complete sections of the rocks are found: (a) in the extreme southwest corner of the State (about 2500 feet); (b) in the southern anthracite field (3300 feet); and (c) in the George's Creek basin west of Cumberland, Maryland, (2000 feet), forming three corners of a great triangle. It has been assumed that from 2500 to 3000 feet of rocks and the accompanying coal beds once existed over all of that triangle and went northwestward as far as Crawford county. For example: In determining the average thickness of coal beds in the northern, eastern-middle and western middle anthracite fields from twenty to thirty feet additional coal has been added to allow for that thickness of the part of the section in the southern anthracite field and absent

in the other fields. So also in the western or bituminous field the presence of the Pittsburgh and other higher coals have been assumed to have been originally present over the whole field, though the thickness value allowed for these higher beds has been judged by general trends in changing thickness as indicated by measurements in outcrops that preserve these higher beds. The total average thickness of the coal in a few of the fields, computed from thousands of actual measurements, is as follows: Southern anthracite field, 143 feet, 7 inches; George's Creek, Maryland, field 78 feet; Somerset county, 31 feet (without the beds above the redstone); Clearfield, Cambria and Somerset counties (lower productive measures only), 13 feet, increased to 25 feet to allow for the upper beds now lost; Greene county, 25 feet. These figures led to assuming an average thickness of 75 feet over the broad Allegheny mountain on the west and north or Kittatinny mountain on the east and a general original average of 25 feet over the bituminous fields of Western Pennsylvania.

How far east of the anthracite fields the coal beds extended originally is not known. They are here assumed to have extended eastward to a line a few miles east or south of Kittatinny mountain, and northward to a little beyond the farthest-most outcrops of coal measures in the northern part of the State. The final figure arrived at is 2,600,000,000,000 tons. This may be called a liberal estimate. A conservative estimate might cut that figure in two. Probably the actual figures are somewhere between the two. Even with the above figure a trillion tons of coal have been stolen from the Pennsylvania coal bin by the wasting hand of time or 100 times as much coal as men have yet mined out or lost in mining in the State, and ten times as much coal as exists in the State now or did exist when mining began.

REPORT EFFECT OF DROUGHT ON CROPS.

The long drought throughout Pennsylvania, which ended only a few days ago reduced the State's crops during August to the lowest point for the season in many years, according to a report of the federal state crop reporting service.

Corn production for August, estimated at 44,902,000 bushels, fell 18 per cent below the 10-year average. The 1928 production was 50,087,000 bushels. The crop, it was reported, fell five bushels per acre below the estimated prospective yield.

The potato crop is at its lowest point since 1911 with the September 1 forecast set at 23,228,000 bushels, nearly 8,000,000 bushels below last year's harvest, and 7.3 per cent below normal.

While the oats yield of 31,262,000 bushels is nearly 6,000,000 bushels below the five year average, the condition of the oats is good, the report stated.

The 37,159,000 bushels buckwheat crop is the lowest on record.

The crop reporting service forecast a production of 6,033,000 bushels of apples, which is 183,000 bushels lower than August 1 prediction.

Tobacco production is at its lowest point since 1913, with only 46,264,000 pounds expected, as compared with last year's crop of 49,580,000 pounds.

Hay was described as a good crop with a harvest of 4,182,000 tons, but there will be no second cutting this year because of the lack of moisture, it was reported.

TEACHERS PENSIONS \$98,152 IN MONTH.

During the month of August, State Treasurer Edward Martin, said, the State's Teachers' Retirement Fund paid \$98,152.69 to 1978 superannuated and disabled school teachers. The fund, Gen. Martin revealed now has a reserve of approximately \$64,000,000. Interest and earnings on investments since the creation of the fund July 1, 1919, total approximately \$10,500,000. H. H. Balsh, formerly of Altoona, is fund secretary. Between July 1, 1919 and July 1, 1929, Pennsylvania teachers paid into the fund a total of \$26,258,641.15, the rates ranging from three and one-third to six and three-tenths per cent of the salaries depending upon their age at entrance. The Commonwealth and the various school districts paid an equal sum plus the cost of payments for service prior to the fund's creation, toward which the State itself pays nothing. Within ten years, says Gen. Martin this payment will end, and payments to the fund will be fifty-fifty from teachers and from the State and districts.

The variation in the number of teachers paid during August and July, said Gen. Martin, may be attributable to the fact that deaths occurred. Each year over a hundred pensioners die, he said, the deaths per month ranging from two to fifteen or twenty. Some of the fund's pensioners are over 80 years of age. During the ten years ending July 1, 1929, the total paid in allowances was \$4,575,000. This is less than the fund's annual interest receipts, totalling approximately \$2,600,000 but as time passes the payments will increase in total amount.

The supervisor of school was trying to prove that children are lacking in observation.

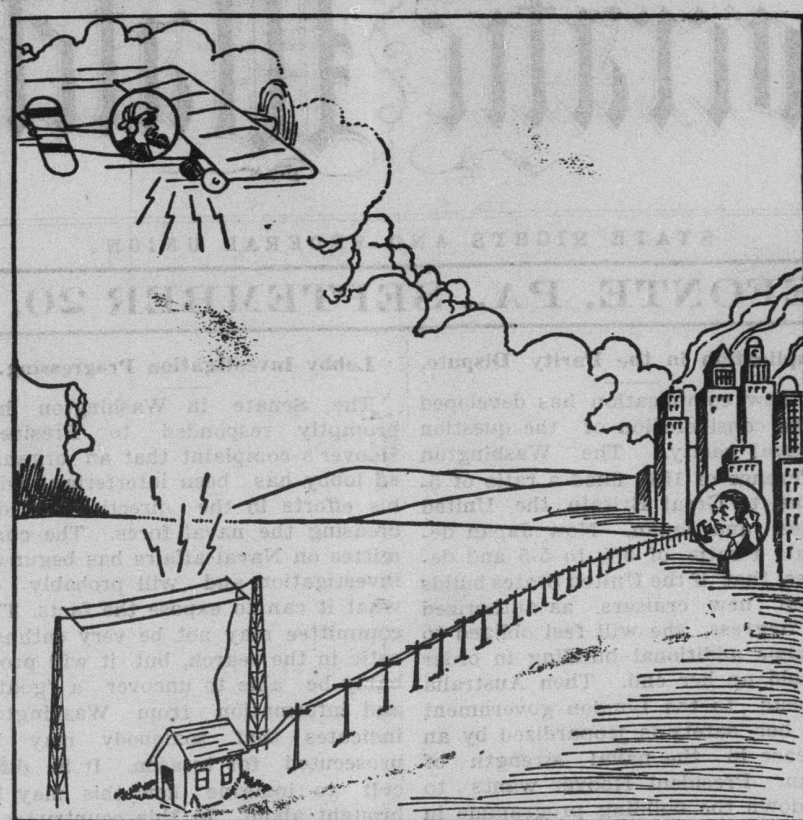
To the children he said, "Now, children tell me a number to put on the board."

Some child said "Thirty-six." The supervisor wrote sixty-three.

He asked for another number and seventy-six was given. He wrote eighty-seven.

When a third number was asked a child who had apparently paid no attention called out, "Twenty-seven. Change that, you old thuck-er."

TELEPHONING FROM AN AIRPLANE



The above etching illustrates how two-way communication is established between a person in an airplane and a telephone subscriber on land. The message from the airplane is picked up by the transmitting station (left) placed on telephone wires, and speeded to the telephone of the distant subscriber.

Reporters in Plane Telephone To Offices Many Miles Away

Bell Laboratories' Engineers Supervise Successful Tests Conducted Over Hadley Field; Method Acclaimed by Aviators

Aviators throughout the country are acclaiming the development of a new form of radio-telephony, which enables a flier while aloft to establish and maintain two-way communication with telephone subscribers on land.

A group of newspaper reporters and telephone experts recently tested the radio-telephone equipment while flying over Hadley Field, N. J., and successfully established contact with telephones located as far as 25 to 30 miles distant.

The tests were conducted under the supervision of engineers from the Bell Telephone Laboratories, New York, and the Western Electric Company, who have perfected the equipment which makes possible this ingenious new method of communication.

For several hours, through adverse weather conditions, calls were put through the transmitting apparatus in the airplane for telephone subscribers on land. In each instance

the desired number was quickly obtained and communication established. Special devices prevent the conversations from being marred by the noise of the airplane motor or other disturbing sounds.

The receiving of conversations in an airplane is made possible through the amplification of signals picked up by a four-foot aerial mast connected to a specially built four-tube receiver. A generator propelled by the wind and attached to one of the struts on the plane, produces power to operate the receiving apparatus. For transmission purposes, a 50-watt set, connected to a trailing wire antenna 40 feet long, is used. Power for transmission of the voice is provided by a generator geared to the airplane motor.

The signals sent from the plane over Hadley Field were picked up at Whippany, N. J., in the Bell Laboratories testing station, and sent by telephone wires from that point.

MAKING SHEEP GROW MORE WOOL AND MUTTON

Elaborating on the details of his scheme to create a species of super sheep, Dr. Serge Voronoff, celebrated rejuvenation expert, made certain revelations which in some circles will be construed as the most dramatic challenge in surgical history.

Dr. Voronoff said he would invite skeptics of the world, including those not convinced of his animal gland graft theory, to attend a public demonstration he intends to give at the international sheep congress in Paris in 1932. The rejuvenation expert believes one demonstration will be enough to convince the most skeptical.

"Like all research workers," Dr. Voronoff said, "I naturally blundered in my experiments until I discovered certain mistakes which were repeated only after years of experience."

"For instance, when I first got the idea of creating super sheep I believed that since, when I grafted an old ram with a young gland, the old animal became rejuvenated; that if I grafted a young ram with an equally young gland I would produce a super rejuvenated type."

"While this is true to a certain extent I later came to the conclusion that even better results could be obtained if, roughly speaking, I grafted the gland of a middle-aged ram—fully developed, but still comparatively young—on a young ram, instead of an under-developed young gland on a young ram."

This is on the same principle as a child's growth, which is greater between the years of 12 and 18 than between birth and 12, because in later years the gland secretions follow puberty stimulate the development of the rest of the body to a greater extent.

"I am so convinced that this theory is correct that I decided to accede to the numerous requests of the French government and many private sheep owners to graft a number of their rams and create for them a new race of animals."

"However, in view of the skepticism in my previous experiments, I decided that this time I would restrict myself to actual operations, after which a committee of distinguished professors of the National School of Agriculture and the National Veterinary School could supervise the grafted animals, monthly and study their development, growth, the length of their wool and their quality as compared with the ungrafted animals."

"At the Paris conference in 1932 the rest of the world can see the product of my experiments."

Dr. Voronoff concluded the interview by saying that the whole thing was very simple.

"Just like gardeners force nature to produce overgrown fruit. I now force the growth of super sheep."

HOOVER IS 15TH PRESIDENT WITH WELSH BLOOD.

President Herbert Hoover is claimed by Welsh historians and genealogists as the 15th President of the United States whose ancestry can be traced back to the noted little country in the southern part of the British Isles, long ago merged into the government of Great Britain.

The statement is being proclaimed with pride by Welsh organizations in the country, who enlisted the aid of a genealogist as well as that of Secretary of Labor Davis, a native of Wales, in establishing the ancestry of Mr. Hoover.

The Welsh blood of the President comes from the maternal side of his family, according to the tracings of genealogists. The Druid, a Welsh publication in Pittsburgh, says that a few years ago President Hoover stated that he was related to General Nelson A. Miles, famous Indian fighter on his maternal side. General Miles was known as of Welsh descent.

The first Hoover, according to the American Heraldry Society, came to the United States in 1740 and settled in Maryland. He was Andrew Hoover, born in Baden, Germany. He married Margaret Pountz.

A son, John Hoover, went to North Carolina and thence to Ohio and married Sarah Burket. Their son, Jesse Hoover, settled at West Branch, Iowa, which became the Hoover home for many years.

President Hoover's mother's name was Hulda Randall Minthorn. Family names of other women in the Hoover clan were Rebecca Yount and Mary Davis.

The name Hoover is given by Harry M. Hoover, author of the "Hoover Family History," as essentially Dutch or German in its origin. The original spelling was "Huber," this being derived from the old German word, Hube pronounced Hubay.

The word "Hube" was said to mean the possessor of a tract of land. In German the name is pronounced "Huver" which is said to have led to the variation of Hoover in the English tongue. The name is also found as Huber, Hover and Hoover in the United States.

All of the coats of arms of the various branches of the Hoover family, it is said, indicate land ownership and industry.

The Welsh claimants of a part of the ancestry of the President also declare that the last three Presidents, including the late President Harding and ex-President Coolidge, all had Welsh blood in their veins. The mother of ex-President Harding, it is claimed, could speak the Welsh language.

Welsh societies have long claimed that their people have shown a remarkable aptitude for public life and politics. The achievements of Lloyd George in British politics are pointed to as an example of their power in the British Isles.

FOR AND ABOUT WOMEN.

Daily Thought.

Opportunity knocks but once; other knockers, please copy.

—Life.

Fancies are realities in the millinery world this season. There is scarcely a designer of importance who does not feature feather or fabric ornaments in the current collections.

Of course, many hats rely solely on twists and other manipulations to achieve the desired smartness and necessary ornamentation, but those creations embellished with small aigrettes and ostrich, the latter in most cases of the glycerinated variety, were in more than one instance quite the success of the day.

The closely fitting toque is the principal millinery silhouette at present, but a very new and interesting note is the draped brim that is flexible enough to be pulled to frame the face at the wearer's discretion.

Of course such brims are of velvet doubled over and back, and care must be exercised to prevent a "flop-py" effect that is not at all de rigueur with winter clothes.

Cutting up and piecing-in seems to have been a popular pastime in more than one atelier during the torrid season. Its results are pleasingly reflected in many of the new frocks just disclosed to view.

Many dresses rely solely on such detail for their trimming and embellishment, and the effect is extremely good, especially in models of the tailored tweed variety.

The vogue for tweed has given new emphasis to the black-and-white mode, and with all black accessories lends a refreshing smartness to street and sports wear.

The eye has become accustomed to the short-waisted, long-skirted gowns, and we find them very pretty on slender women. Sometimes, even if the bodice be long and slim, the natural waist is marked by a ribbon tied at this point. Several houses do this, Worth and Auguste Bernard among them, while Louise Boulanger puts a suede belt at the waist of some of her long, slim, chiffon gowns, and Lanvin adds a narrow belt of the material at this point, even though her bodices be sheath-like almost to the knee.

The longer bob or the short but full or fluffy bob, is back again and I believe it is because of the longer skirts. You know, we would look terribly out of proportion in long skirts and a sleek hair arrangement that made our heads appear small.

To prepare peach salad, arrange halves of quite large peaches, hollow sides up, on dainty salad plates, which have been lined with crisp green lettuce leaves or endive.

Chop hearts of celery and a quarter of a cup of almonds very fine, and mix with a package of cream cheese. Fill the cavity in the peach with the mixture. Cover with the other side of the peach.

Spread over with mayonnaise, and top with a little dab of soft cranberry jelly. Sprinkle with parsley.

Have you ever tried Peaches in Meringue Nests? It's a dainty way to serve peaches. Beat the whites of six eggs to a stiff dry froth, add 2 cups of sugar a little at a time, and beat. Add a teaspoon of vanilla and a teaspoon of vinegar. Press the mixture through a pastry tube to shape the "Nests."

Bake in a very slow oven for forty minutes or longer.

Put half a ripe peach in each nest, dust it with powdered sugar, and pile with sweetened whipped cream.

Peach Fritters may be served as an individual breakfast dish, or they may figure prominently in the dinner menu as an accompaniment for the entree. Either way they are so good. Beat together three eggs and a tablespoonful of sugar.

Slowly add a half cup of warmed milk. Then sift together one cup of flour, a teaspoon of baking powder, and a quarter teaspoon of salt. Peel and slice a dozen ripe peaches, and mix them into the batter.

Drop from a spoon into deep fat and fry to a light brown. Drain on waxed paper.

A peach sauce can do wonders to a piece of stale cake; it's a good idea to have a recipe for it in your cookery file. Dissolve two tablespoons of confectioner's sugar in three tablespoons of boiling water.

Stir in a half cup of marshmallows which will be immediately softened by the water. Add a teaspoon of lemon juice and a half cup of crushed peaches, and beat with an eggbeater until light and frothy.

Cucumber is one of nature's own cosmetics. Try using a slice of cucumber instead of soap for washing your face. Don't ever throw away the rind. Boil it and use the water for washing your face.

Babies should not be taken to see moving pictures—a child should be at least six years old before indulging in this recreation. Depends upon the strength and general health of the baby—some babies sit up about the sixth month, but there is no hard and fast rule governing this.

Prune Coffee Cake. — Cream $\frac{1}{2}$ cup sugar and 4 tablespoons butter. Add 2 eggs, well beaten. Sift together 2 cups flour, 2 teaspoons baking powder and $\frac{1}{2}$ teaspoon salt, and alternate with $\frac{1}{2}$ to $\frac{3}{4}$ cup milk until you have a very soft dough. Pour into a greased baking pan. Top with prunes that have been soaked and stoned. Sprinkle with a mixture of $\frac{1}{2}$ cup brown sugar and $\frac{1}{2}$ teaspoon cinnamon. Bake in a moderate oven twenty-five minutes.

Boy: Can a person be punished for something he hasn't done?
Teacher: Of course not.
Boy: "Well I haven't done my geometry."

FARM NOTES.

Select seed corn in the field. Gather only well-formed and matured ears from healthy, vigorous, well-rooted plants having green stalks and yellow husks. About 15 medium-sized ears will plant an acre, but save twice as much as will be needed for planting if possible.

The best time to select fruit for exhibition is during the harvest season. Save more than you will need and give it special care to prevent bruises, punctures, and other injuries, say Penn State fruit specialists.

Now is the time to prepare the beds for fall but, some of these should not be set until late in October, but time will be saved by having the beds ready at planting time. Dig down to a depth of one foot, pulverize the soil and mix it with leaf mold and sand, State College specialists recommend.

A good farm machinery shed will soon pay for itself by prolonging the life of the tools it protects. This happens, however, only when the shed is used for its intended purpose. Machinery left standing in the field after the seasonal use is that gets no protection from the destructive elements, regardless of the fact that there may be a good shelter for it. Make both machinery and shed pay for themselves by introducing them to each other.

Over 463,000 individual dog licenses were issued during the first six months this year, according to the Pennsylvania Department of Agriculture. Latest reports to the Bureau of Animal Industry indicate that 16,871 more dogs were licensed to July 1 this year, than during the corresponding period a year ago. Likewise over 1000 more worthless dogs have been killed and approximately 1200 more dog owners have been prosecuted for violating the law this year than a year ago.

All chickens intended for the early market should receive as much food as they will consume four times daily.

Under good management it is possible to add half a pound weekly to the weight of birds which have been specially bred for the table. Of course, in every flock there will always be a few birds with a tendency to put on very little flesh—in fact, there is often some difficulty in maintaining their weight.

Such birds should be marketed without delay. If kept for special fattening they frequently drift into an unmarketable condition.

Early hatched pullets that start to lay in October and November are usually the most profitable egg producers. High egg prices occur in the early fall and winter months. Before the pullets begin production they should be fully matured and well-fleshed. It is advisable to feed a liberal amount of grain now in order to build up a surplus of flesh.

Horse nettle grows in pastures, meadows, gardens and cultivated crops in many counties of the State. Keep the shoots cut down to completely starve the root stalks. In large areas frequent cultivation, as in check-rowed corn, with hand hoeing for stray shoots and after cultivation is a good control method. Smother crops or summer fallow will also control this pest.

Fllea beetles have damaged early potatoes very severely and killed the vines. Even the small potatoes are rough, showing the pimply condition caused by flea beetles. Some growers and consumers confuse the pimples with potato scab, but there is no relationship.

With abundance of the second brood flea beetles attacking late potatoes, severe damage will occur within the next few days unless ample protection is afforded.

Bordeaux mixture alone will not control the flea beetle. Arsenate of lead or calcium arsenate must be used to put the insects out of business. Three to four pounds of arsenate of lead or calcium arsenate to 100 gallons of spray is recommended. The application must be thorough and can best be made with the sprayer boom lowered and the nozzles turned upward.

Bees often take up their abode where they are not wanted, as in a cavity in a wall. A good way to get them out is to put a bee "escape" over the entrance to the cavity, so the bees can get out but not in.

A cone of wire cloth about 8 inches high with a hole at the apex just large enough for one bee to pass through will serve as an escape. A regular hive should be placed beside the entrance for the return of the escaped bees. The queen remains in the old cavity and goes on laying eggs, but as the colony is quickly reduced in size the quantity of brood decreases. The younger bees leave the cavity and join the bees in the hive. A new queen should be given to the bees in the hive as soon as possible.

After about four weeks, remove the bee escape and make as large a hole as possible at the entrance of the cavity. The bees will go in for the honey and carry it to the hive. For this method to work successfully, it is necessary that the bees have only one exit from the cavity.

White pine blister rust leads a double life like Doctor Jekyll and Mr. Hyde of literary fame.

Early in the spring a type of spores which cannot infect pine is formed on the pine trees. These infect currants and gooseberries. A short time later a type of spores which can infect only the berries is formed on the currants and gooseberries. In the fall, spores which will infect white pines are formed on the berry plants. Fortunately, these spores are shortlived and can spread only short distances.