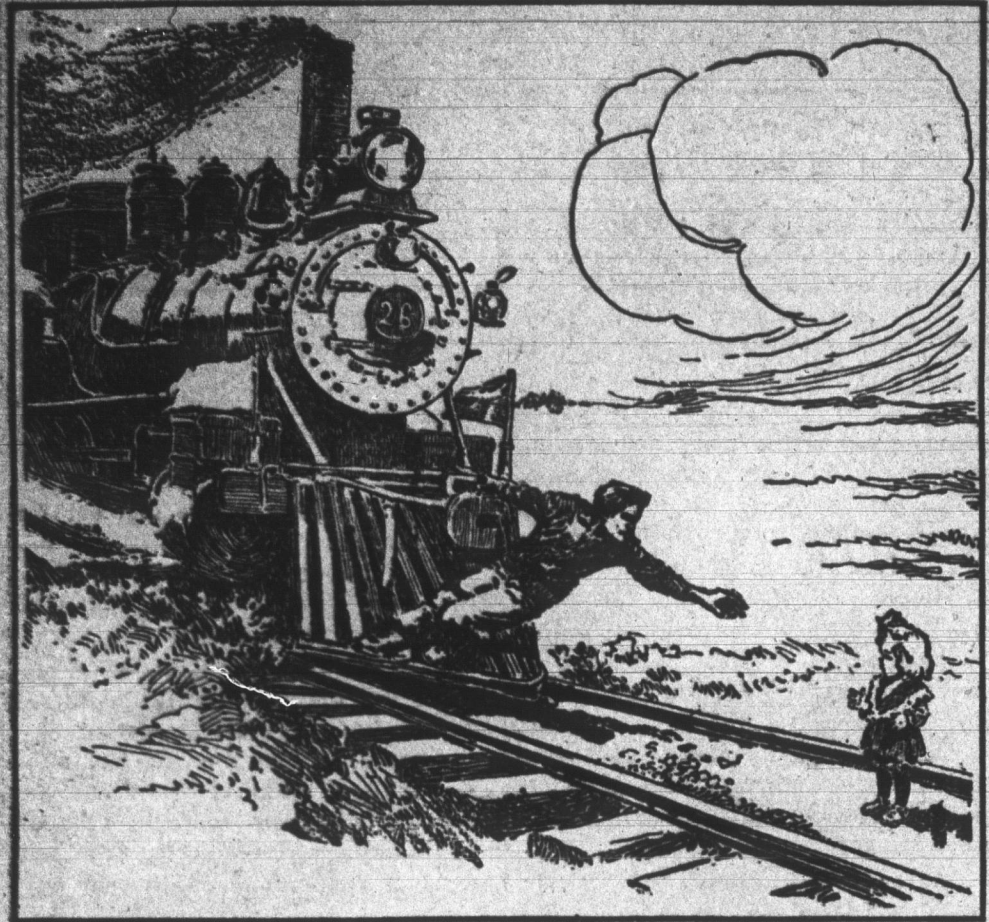


## Three Acts of Bravery That Earned Coveted Hero Medals



**G**EORGE H. WILLIAMS of Braintree, Mass., a locomotive engineer on the New York, New Haven & Hartford railroad, is the only New Englander to have received one of the Carnegie medals of honor. On December 21, 1905, his train, 5114, north-bound, for Boston, arrived at Quincy, Mass., at 10:59 a. m. With his engine standing still at Saville street crossing he noticed a woman and young girl running across the tracks, evidently with the purpose of catching his train. They were Mrs. Jennie M. Hill and daughter of Quincy. They had to cross a south-bound track on which an express train was approaching at high speed. Williams realized that they could not cross in time, and that they were unaware of the nearness of the express.

Leaping from his engine he ran toward them as fast as he could, shouting at the same time a warning. The girl crossed the track safely, but Mrs. Hill stepped between the rails almost in front of the train, when she was pulled back by John G. Menchin, the gate tender. At the same instant Williams reached her. He assisted in shoving her off the track, but before he could himself escape the locomotive struck him, hurling him 20 feet and injuring him seriously. He was laid up for three months.

**Brave Act That Saved Child.**  
Charles M. Haight of Utica, N. Y., an engineer on the Delaware, Lackawanna & Western, who received one of the medals, was running his train of milk cars down a steep grade, into West Winfield, N. Y. Glancing from the cab window he saw a little girl on the track a short distance ahead. He applied the brakes and reversed his engine, and then scrambled out on the running board and down onto the pilot. The tracks were slippery

### IN OLD SLEEPING CAR DAYS

Col. J. L. Barnes, First of the Pullman Conductors, Tells of the Primitive Coaches.

It isn't generally known, but it is a fact, nevertheless, that Col. J. L. Barnes, for nearly a third of a century superintendent of the Southern Kansas division of the Santa Fe, was the first Pullman conductor in the world. While in a reminiscence mood recently the colonel told of his experiences as the first Pullman conductor:

"In 1858 George M. Pullman arranged with the Chicago and Alton railway for two of their day coaches, which he fitted up as sleeping cars. Mr. Pullman at that time had an office on Madison street in Chicago. I passed his office going to and from my boarding house, and on account of a notice in the papers that Mr. Pullman was going to put sleeping cars on the Chicago and Alton, I made application to him for a position as conductor.

"In September, 1858, he took me to Bloomington to bring out the first car that he had ready for use. This car, as I remember, was a low deck one and had been used for a long time as a passenger coach. It had rods running up and down at the end of each berth. The upper berth was pulled up on the rear side by a rope and pulley and the front of the berth slid up on these rods and was fastened with an iron catch. The lower berth was made out of the two seats turned together.

"As I now remember, I was paid \$2 a night and made up my report in Mr. Pullman's office at the end of each round trip, deducting \$4 from my collections for my pay. I understand, on one trip, that the man who ran opposite me was short 50 cents of enough money to pay his own wages.

"I remember well looking at one of the cars that was then used on the Lake Shore. This car was called 'Woodruff Patent,' but was very unpopular on account of the two upper shelves, as they were actually only shelves for people to sleep on. Mr. Pullman, after using the two old coaches a year or more, commenced the building of a new car, which was

and wet and the brakes on the steep grade did not hold. But Haight reached the 'cowcatcher' in time, grasped the child and swung her up into the air ahead of the engine. In doing this the girl's head struck him a sharp blow over the heart, bearing him backward upon the pilot beam, where he had great difficulty in hanging on with his burden until the train came to a stop. The fireman, who was on the back end of the tender, did not know what had happened until the rescue had been made.

**Woman Proves a Heroine.**  
It must have given the Interstate commerce commission, cold and mechanical though it is, satisfaction to have awarded her the next medal. It went to a woman, Miss Mary Guinan, a worker in a shirt factory at Middletown, N. Y. One day in the winter of 1906 she was standing at noon at the Montgomery street crossing of the Erie railroad. The gates were lowered and the warning signal bells were ringing, for trains were passing in both directions.

At this juncture Miss Guinan was horror-stricken to see John Runyon, a venerable old man of seventy-four years, start to cross the tracks. He walked around the end of one of the gates and, apparently unaware of the danger, darted nervously across the lines of shining rails. As he reached the central space between the east and west-bound tracks he seemed to realize his danger at last, and was completely bewildered.

Miss Guinan saw his perilous position and his confusion. She sprang across the tracks toward him between the two tracks and grasping him firmly held him between the two tracks while two trains passed each other. The space was measured afterward—it was exactly 36 inches wide, and the tracks there made a 14 degree curve. It was declared to be a most dangerous spot.

a very fine one. The construction of this car was in charge of a Mr. Field. At that time Mr. Pullman was in the mining business near Black Hawk, Col., and had not seen the car until he was at Alton, coming home from Colorado. I showed him the good points about the car and I remember well what he said: 'It ought to be good—it cost enough.'

**And All in a Day.**  
"Let us suppose it became necessary to send the entire National Guard of New York out of the state, how long would it take the railroad to handle them?" was asked a railroad official in New York.

"Twenty-four hours, easy!" was the instant reply. "This is under war conditions, remember, which means that everything gives way to the movement of troops and their equipment. The railroads of America can handle men and war material of all kinds, including everything from horses and men to cannon and rations, much faster than they can be assembled and delivered to us.

"In fact under war conditions the railroads are prepared to do their part quicker and better, with more certainty and better speed, than any other part of the machinery, commercial or military, in America."—Railroad Man's Magazine.

**Locomotive Covered With Flies.**  
A curious sight was witnessed at Aberdeen station lately when a train arrived from Fraserburgh. As the train advanced the front of the engine appeared to be covered with dust, but on being examined closely it was found that there were thousands of small flies, which had become attached to the engine, the front of which being covered with oil had acted in a manner similar to fly-paper. Such an incident is not remembered by the oldest railway officials.

**Longest Straight Railway.**  
Egypt has a desert railway which runs 45 miles in a straight line, but the longest straight piece of railway line in the world is said to be from Nyngan to Bourke in New South Wales. This railway runs 126 miles on a level in a dead straight line,

## SYSTEM THAT FAILED

MRS. JAY'S MEMORY IS NOT YET PERFECT.

Possibly Her Forgetfulness Has Been Remedied Somewhat, but Not Enough as Yet to Make Accuracy Quite Certain.

Mrs. Jay's husband says that the only flaw in the armor of that good lady's perfection is her memory. She is a charming woman, but she cannot remember things accurately, and especially those things which are not, after all, of larger import. If she is introduced to a Mrs. De Smythe it is a safe bet that before the afternoon is over she will address her as Mrs. De Jones, and men's names she cannot remember at all. She has tried hard to overcome this slight defect in her social make-up, and latterly, through the adoption of a memory system, has shown some signs of improvement, although Mr. Jay says that it does not as yet quite work as accurately as he might desire. As an instance of this he says that, while spending a month at a southern resort in the early spring, Mrs. Jay became acquainted, during his absence in town, with a delightful little woman, to whom, upon Jay's return, she was very desirous of introducing him. Unfortunately, at the first opportunity that presented itself the good lady was utterly unable to remember her friend's name, and the chance was lost.

"You might inquire at the desk what her name is, and then we'll go right to her and I'll introduce you before I forget it," said Mrs. Jay.

That evening, while the happy couple were arraying themselves for dinner, Jay remarked:

"By the way, my dear, that lady's name is Woodman—W, double O, D, M, A, N—Woodman. Think you can remember that?"

"Oh, yes, so it is," giggled Mrs. Jay. "Well, anyhow, I'll try my memory system on it—I'll think of the poem:

"Woodman, spare that ax."  
"Ax?" echoed Jay, with a roar of laughter. "Ax? Why, my dear child, it isn't 'ax'—it's 'tree.' The line is: 'Woodman, spare that tree.'"  
"O, yes, so it is," giggled Mrs. Jay. "Well, anyhow, it's 'Woodman,' and I shan't forget."

After dinner Jay spent a short time in the smoking room with his cigar, and about 9 o'clock entered the music room, where Mrs. Jay and Mrs. Woodman were sitting.

"Henry, dear," cried Mrs. Jay, beaming, as her husband entered, "come over here—I want you to meet my friend Mrs.—er—my friend Mrs. Ax."

There was an unheeded tableau at this point, which Jay says was a remarkable success, although he has no particular desire to see it a second time.—Harper's Weekly.

### Fame Vs. Fortune.

An anecdote is related of Benjamin West, that when a small boy in his Pennsylvania home, he accompanied a neighbor's son to mill, haring, boy-like, in his ride upon the bags of grain. As they rode leisurely on, they discussed their plans for the future, and Benny surprised his young playmate by announcing his designs to become an artist and paint the portraits of kings, queens and nobles.

"Very well," returned the rustic; "I intend to be a tailor."

"Then you may ride by yourself," exclaimed Benny, leaping down from the back of the thrice-laden horse; "I'll not ride with a boy who looks no higher than that."

Benny's ambition was gratified; he lived to paint portraits of the noble and the royal, winning plenty of fame, but a very moderate share of fortune. He was offered the distinction of knighthood, but prudently declined; he was not rich enough to support a title. The inept tailor probably made a fortune in ready-made shoddy, and if he had been where such trappings are in the market, might perhaps have purchased the baronetcy which West was too poor to accept.

### Elevation Affecting Steam Engines.

Remembering that water boils more readily, that is, with less heat, at high altitudes, it appears to be only reasonable to expect that steam would have less force on high mountains than in valleys. An engineering authority tell of a large gas plant which was some time ago exported from Great Britain and erected at a location several thousand feet above sea level. The engines did not give the power expected from them, and several reasons were advanced to account for this deficiency. It was finally concluded that the loss of power was due to the altitude of the power station. Upon investigation of the theoretical and practical considerations involved it was found that there is a loss of about one per cent. of the indicated horse-power for each 1,000 feet increase in elevation. The effect of an increase in elevation on an engine with a low ratio of compression is slightly less than on an engine with a high degree of compression.

### No More of That for Her.

"I want you to become my spirit wife," said the organizer of a new cult.

"Not for a minute," replied the lady who had been inclined to become his follower. "My husband told me before we were married that I was his angel, and after my experience with him I'm through playing the part of a spirit."

## PINAFORE WAS TOO POPULAR

Once Everybody Sang or Played It or Made Continued Use of Its Catch Phrases.

There was a time when the vogue of "Pinafore" was simply amazing. It was not copyrighted and after its success in London it was pirated in the United States. This piracy was the initial cause of Gilbert's hatred of America and Americans.

However, if America did not send him its dollars, it was quite ready to spread his fame, says the Bookman. Church choirs added "Pinafore" to their repertoires, and it is recorded that 100,000 barrel organs were constructed to play nothing else. Here is an ironical note from a newspaper of the time:

"At present there are 42 companies playing 'Pinafore.' Companies formed after 6 p. m. yesterday are not included."

Its catch phrase, "What, never? Well, hardly ever!" was deadly. It is told, for instance, that one editor barred his staff from using it.

"It occurred 20 times in as many articles yesterday. Never let me see it used again." "What, never?" was the unanimous question. "Well, hardly ever," replied the wretched man.

The readiness of W. S. Gilbert's wit is well illustrated by this story told of him. He and F. C. Burnand, the editor of Punch, were guests at the same dinner table where a wise host placed the rival humorists at opposite ends of the room in the hope of distributing equally the witty table talk.

Continual shouts of laughter rose from Gilbert's corner until Burnand, after ineffectual attempts to arouse a similar jocular hilarity in his immediate circle and unable to conceal his chagrin, leaned forward and said in his most sarcastic manner:

"I suppose Mr. Gilbert is telling some of those funny stories which he occasionally sends to Punch but which don't appear."

To which Gilbert dryly replied: "I don't know who sends the funny stories to Punch, but it's very true they don't appear."

### Migratory Birds.

In a recent issue of the National Geographic Magazine Mr. Wells Cook of the United States biological survey, has presented an interesting study of bird migration. In his article he tells us that the cliff swallows which nest in Nova Scotia leave the Gulf coast of Mexico about March 10 and arrive at their destination two months later, on May 10. Most of the birds that spend the winter in Central or South America, he says, take the direct route across the gulf instead of going via Texas or by way of Florida, Cuba or Yucatan, and this aerial journey means a single flight of from 600 to 700 miles with no alighting place.

But the greatest traveler of all is the golden plover, which nests in summer on the arctic shores of North America, whence it migrates to Labrador, and at Nova Scotia begins a 2,500 mile flight to South America. Its winter home is in Argentina, and after a six-month stay there it comes back across the gulf and up the Mississippi valley, and when it is again at its summer home it has covered about 15,000 miles. The arctic terns accomplish in 20 weeks a round trip of 22,000 miles between the arctic and antarctic oceans.

### Danger in Floor Oils.

There is a warning to housekeepers and to all who have the care of buildings in the fatal fire at Nantucket a few days ago.

The bathhouse that burned so rapidly that two young women were killed had just been oiled. There are oils and oils; some are highly inflammable, others are comparatively safe, though nearly all used for this purpose will burn when a flame is applied to them. A mop used for the oiling was near the match thrown to the floor by a careless guest. It caught instantly, and the fire spread so rapidly that those who escape did so by jumping into the water surrounding the bathhouse.

Probably there was a large amount of the oil, applied carelessly to the floor, in the expectation that it would soak in. But the lesson is that oil should not be used too liberally, as it so often is, wherever matches may be dropped. Test your oil before using it, and then be careful.

### Ministers.

Much alarm is done by the excellent men and women who gather up all the charges of cruelty against surgeons and physicians and publish them in the interest of humanity. We make no exception, not even in the case of missionaries, when we say that there is no class in the community which furnishes more heroic examples of devotion to the interests of mankind than the nurses and physicians who spend their lives not only in ministering to the sick, but in devising new ways to relieve suffering and in tracing out the secret causes of disease. Every month we read of physicians who have lost their lives in the conduct of experiments designed solely to banish the plague which devastates society. They die of yellow fever, the plague, leprosy, the baneful effects of radium, and the new applications of the secret forces which are just coming under experiment in chemical laboratories.—Christian Register.

### Getting His Measure.

"Isn't that young man remarkably fond of outdoor sports?"

"No," replied Miss Cayenne. "He merely enjoys having his picture taken in outdoor clothes."

## Profitable to Fertilize Clover



By JOHN B. ABBOTT  
Associate in Soils, Purdue Experiment Station  
Purdue University Agricultural Extension



Weeds on Untreated Plot at Left. Clover on Limed, Fertilized Plot at Right.

The fact that clover may need fertilization and that it can often be fertilized at a profit is quite generally overlooked, probably because clover is known to improve the fertility of the soil and is generally grown mainly for that purpose rather than as a money crop. As a matter of fact the use of mineral elements, phosphoric acid and potash, and in some cases lime as well, often makes all the difference between success and failure. The experimental field in southern Indiana, part of which is shown in the accompanying cut, is a case in point. This field had been heavily cropped and rather poorly cared for for about 75 years when the experiment was started in the fall of 1905. Clover has been seeded on parts of this field every spring since 1904, but has never made a satisfactory crop on the unfertilized parts of the field, the land remaining bare except for a few weeds as shown on the left-hand side of the cut. During the same period, clover had never been a complete failure on the limed and fertilized plots, one of which is shown in the right-hand side of the cut.

These results are about what may be noted on naturally poor or badly worn soils in all parts of the country. Clover failures are of course sometimes due to unfavorable weather, or in the case of over-rich soils to smothering out by the nurse crop, but in very many cases it is simply a case of starvation. The soil has become too poor to raise clover. Such cases demand immediate attention; for soils that fail to grow clover are pretty sure to run down in fertility very rapidly.

It is generally recognized that the tubercle forming, nitrogen fixing bacteria, which after all are what makes clover valuable, will not tolerate an acid reaction of the soil, and this being the case the first step to success

with clover is the correction of soil acidity by an application of about two tons per acre of finely ground limestone or slaked lime, which should be disked in before wheat is sown. It is to be noted, however, that not all soils which fail to grow clover are acid, and limestone should be tried in an experimental way before going to any great expense for liming, which may not do any good.

The next thing to be considered is the physical condition of the soil. Clover is very tender as a seedling plant, and must not be expected to thrive in a soil so devoid of decaying organic matter that it puddles when wet and bakes and cracks wide open when dry. No small tender plants could stand such treatment. A good coat of manure will go far towards correcting this condition, or a vigorous, large-seeded legume such as the cow pea may be grown and plowed under, after which it will be much easier to get a stand of clover.

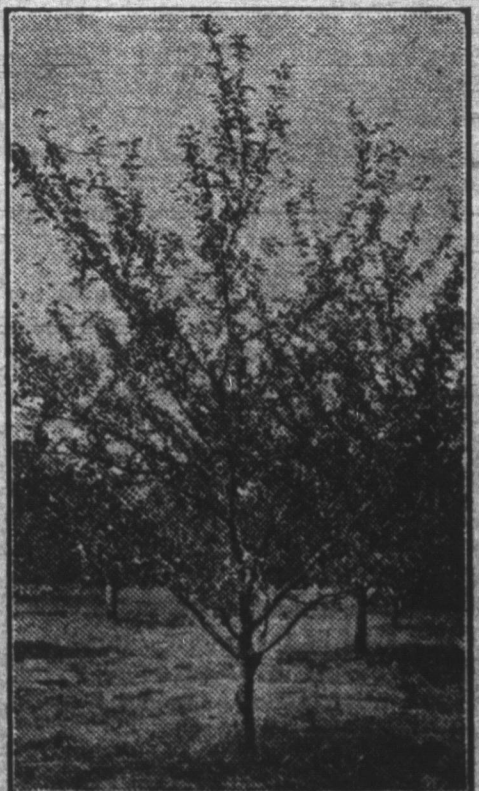
Finally, after the physical condition of the soil has been made good enough so that clover can get a start, and acidity has been corrected by the use of lime so that clover can utilize the atmospheric nitrogen, there remains the necessity of fertilization. Clover feeds upon the same elements that other crops do, and gets them from the soil in the same way with the exception of nitrogen, and if the soil is too poor in the mineral elements to grow grain crops successfully, it is likewise too poor to grow clover. It is not necessary or advisable to provide a special fertilizer for clover. It is better practice to fertilize the preceding small grain crop liberally enough so that there will be some left over for the clover. The application of less than 200 pounds of fertilizer per acre for wheat certainly does not provide for a sufficient amount and it is probable that 300 pounds per acre is not at all excessive.

## PRUNING MATURE APPLE TREES

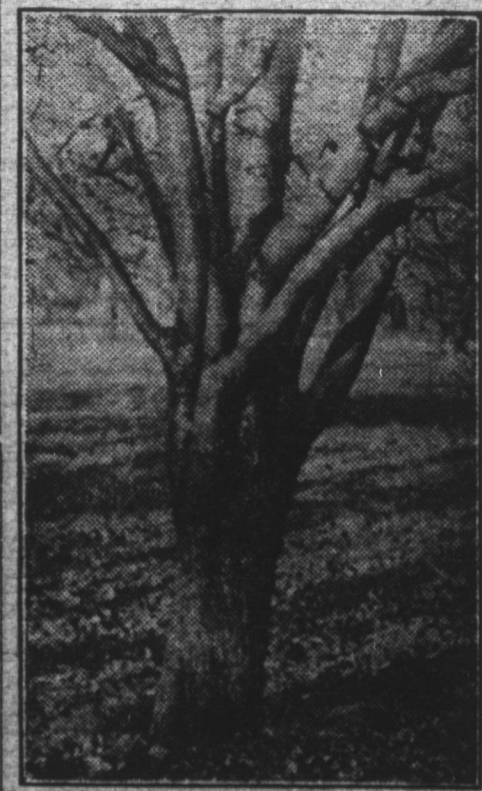
By C. G. WOODBURY  
Horticulturist, Purdue Experiment Station  
Purdue University Agricultural Extension

It was shown in the last pruning lesson how wrongly made pruning wounds open the way for the entrance of disease which either kills the tree outright or shortens its life by many years. The main idea brought out was to make clean, close cuts and to paint over large wounds.

The best time for pruning is one of the questions which the orchard owner most often asks. The answer depends upon the purpose for which the pruning is done. The most common advantage gained by judicious pruning of mature apple trees is the



An apple tree with a well-formed head. The scaffold limbs are well distributed and the crotches strong.



Don't allow the head to develop in this way. Such over-crowding can be prevented by correct early pruning.

relieving of competition between branch and branch. A mature apple tree should not be looked upon as an individual being, such as a horse or cow, the entire body of which suffers if any part of it is removed or injured. The tree rather represents an aggregation of competing units, a colony of individuals all striving for their own development, regardless of the effect upon their neighbors. The bud is the unit, rather than the tree. Every bud and every branch devel-

oping from a bud, is engaged in a fierce struggle with neighboring buds and neighboring branches, for access to the light and the air which are essential to their development. In this struggle many succumb. Many more are nearly overpowered by stronger neighbors and lead a half-starved, feeble existence. It is the business of the fruit grower to select those buds in the young tree or those branches of the mature tree whose preservation will benefit the whole tree. Thus the relieving of competition, the pruning away of the unfit, and the feeble, is a benefit to the whole collection of units which make up the tree. Each one which remains can and should have free access to light and air. Every one should be removed, whether large or small, which is poorly placed and which is not fit to survive and bear fruit.

The best time to do this annual