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AN OVERCOAT IN SUMMER.

Upon the closet-peg I hang
Throughout the summer long,
I hear the doors and shutters bang,
And every thing's ding-dong;
I long for winter time again,
With blizzard and cyclone,
For now I'm roasting in my skin
On this old peg alone.

I want to flap in every breeze,
On mornings cold and fine,
And dangle round my owner's knees
When he sits on his spine;
I long for hurricane and snow,
Sleigh ride and dreamy hop,
I wish that summer's golden gush
Would hurry up and stop.

My owner's now beside the sea,
Or on the mountain-top,
And here upon this peg, ah! me,
I feel the pesty moth;
I'd like to go and have a skate,
Hear people wheeze and cough,
Why, that would make me so brave,
I'd laugh my buttons off.

I am a hardy veteran,
I'm made of toughest cloth,
I long for winter time again,
I can defeat the pesty moth.
But in this murky closet lost,
I have to pine and mourn;
My buttons all are loose or lost,
My pockets all are torn.

No things in my sleeves repose
To rack my owner's soul,
But one dear little and rose
Pines in a button-hole;
She pined it there with cheeks aglow,
When snow lay on the pine,
And said in accents soft and low:
"When will you call again?"

Her smiles did all my pattern charm,
Upon fifth avenue and so,
And when she fondly took my arm,
It thrilled me through and through;
My pockets held the caramels
Over which she'd mighty gloat—
She was the queenliest of belles,
I but an overcoat.

There is a single thing I beg,
With all my heart and soul,
Oh, take me from this closet-peg,
Right to the North Pole,
And let me, with the playful seal
And genuine fur bear,
Laugh, till along my seams I feel
The biting winter air.

—Pack.

A QUEER AUNT.

How She Tried to "Polish" Her Two Nieces.

"Cachug! cachug! cachug!" sang the churn.

"Whippoorwill! whippoorwill!" When you hear the first whippoorwill's song,

sang the maiden who plied the dasher through the foamy cream.

It was in the cool of a summer morning. The family breakfast had been taken while dusk was yet on the landscape, and the flies yet dozing on the kitchen ceiling. Then, as Sue cleared the table, Dell had hastened to bring from the cool cellar the cream, in dewy crocks; had hurried it, with splash and thud, into the stone churn, that the butter might be finished while yet the morning's breath was unheated, and sweet with the sweetness of rose and honeysuckle. Surely it would be fair and fragrant, the butter of such an hour.

The churn stood to its middle in a vessel of fresh water. A cherry-tree, low-branched and gnarled, overspread the girl at the dasher, and crowded its bright fruit against the eaves and on to the shingled roof. Robins and sassy blue-jays were flitting and flirting among the branches, shaking down the dewdrops, with now and then a bleeding cherry, dropped from the beaks.

Slowly the white light was stealing up the sky, showing adown the garden-walk the great blotched touch-me-nots and crimson poppies and low-blooming petunias, every corolla and leaf bending under the heavy dew; showing the tree wind-break like a castled wall, and beyond the break, the meadow-lands, stretching out and out, till the sky stooped down and stopped them.

"Cachug! cachug! cachug!" sang the dasher, thud of speech from the clinging butter.

"Meet me, oh meet me,
When you hear the first whippoorwill's song,"

sang the maiden.

"Why, Dell, that butter must be come!" Sue called. "I know it must be by the chug sound."

Dell lifted the cover; a warm breath came up from the dappled milk; all the dasher's length to the hand was flecked with butter; all the churn's walls were specked with it; it clung in beads of pale yellow to the down side of the lid, it floated in islands on the milk. Dell's strongly muscled hand turned the dasher till the little butter islands were massed into large ones. Dashes of fresh water rinsed down the straggling globules from the lid and churn-walls, and cooled the warm milk. Then Dell went to the garden, to weed the beet-bed and to train the pea-vines up the brush. When she came back to the churn, she brought long, bright radishes, silver onions and cool bunches of curled lettuce.

She had salted and worked the butter, and had just got it into the mold when the roll of wheels was heard. Both girls ran to the window. At the gate was a buggy, and from it at that moment was climbing a woman.

"Who can it be coming here so early?" said Dell.

"Who on earth?" echoed Sue.

"There! She's sending the buggy away, so she means to stay."

The girls snatched off their kitchen aprons, and made some passes at their hair.

"May be it's our fortune," said Dell, tying on a clean apron.

"I hope it is," said Sue, "for I'm tired of farm-work."

Sue went to the door to receive the strange woman; the first glance at the face framed in the white ruchings of the green bonnet showed that the face was a strange one. The visitor was tall and thin, with very light hair, pale blue eyes and a parchment-like skin.

"How do you do?" she said, smiling

and kissing Sue. "I'm your Aunt Dorothy Bean, your mother's sister and your father's sister-in-law. You're Sophy Hopkins' daughter, ain't you?" Sue said: "Yes."

"Then I'm on the right track. I generally am. Your mother was the next youngest to me."

By this time the visitor was in the house, and was untying her green satin bonnet-strings.

"I am very glad to see you," said Sue, surprised and awkward.

"I knew you would be, if you're any like your mother; considering, too, that I've come all the way from Maine to Kansas to look out for Sophy's children. I'm going to take them all back with me, and get them polished and married off and set up. I hope she didn't leave many children. I can never rest in or out of my grave till I see them all polished and set up."

"She talks about us as if we were tin muffin rings," was Sue's mental commentary.

"It's been running in my head to do this ever since poor, dear Sophy's death. How long is it since she died?"

"A little over eight years," Sue answered, thinking that the aunt's idea had had a long run before coming to its execution.

"Eight years!" exclaimed the aunt, in tones of excessive surprise. "Is it possible? Why, I didn't think it was much over seven. And how many offspring did she have? The question is necessary, because I'm going to take them all back with me, to have them finished and polished and married and set up."

"Mother left only two children."

"I'm truly thankful for that!" the aunt interpolated.

"I have a sister eighteen months older than I am."

"Eighteen months older than you?" cried Aunt Dorothy, in long-drawn tones of astonishment.

"She talks as though I was a girl Methuselah!" Sue thought.

"Then I must get about her finishing or polishing, or I'll be too late to save her from marrying in her present sphere. I have come here with the unalterable purpose of elevating Sophy's children."

Here Dell entered, looking bright and smart in a new calico dress. Her face was a very pleasant one, fresh, healthy, cheerful. The bright brown hair rippled from root to tip, and hung free, just clearing the shoulders. The eyes, of a navy-blue color, were large and soft; the complexion was good; there were some freckles, but those faded, almost blotted out, by the vivid blood of the rounded cheeks. The girl entered with a question in her face.

"Aunt Dorothy, my sister Dell," said Sue.

"Is it possible?" said Dell, glowing with surprise and pleasure. "I'm very glad to see you."

"And well you may be. I've come from Maine to Kansas to make a lady of you."

The bloom of Dell's cheek spread to her shapely ear, and from brow to chin. Weren't they ladies, she and Sue?

"I couldn't sleep with worrying about poor Sophy's children, growing up in a wilderness unpollished. Where's Brother-in-law Hopkins?"

"He got an early start to the field; he set out to get his corn laid by to-day. But come and get washed and combed, while I set you a cup of coffee."

"Yes," said the aunt, getting to her feet with the spring of a grasshopper.

"And broil me a piece of chicken or a bit of trout."

The sisters exchanged a look of dismay.

"She'll have to go to Maine for her trout," Sue thought.

"And make haste, my dear, for I am faint," said the aunt.

The girls made a move to leave the room.

"I want one of you to stay and talk to me," the guest said.

Sue sat down, but she was spared the trouble of talking.

"Poor Sophy's husband, your father, and my brother-in-law! Nothing can be done about elevating him. He has lived a clothopper, and he will die a clothopper," the aunt said, between the dashes of water over face, neck and head, dashes made with such abandon that Sue sat trembling for the newly-papered walls. "But Sophy's children I shall polish."

She was not fairly through with her splashing when Dell announced the lunch, apologizing that she had to substitute broiled ham and poached eggs for trout and chicken.

This furnished a text.

"I must get Sophy's children off this farm to a city, where they can step out and get dressed trout and chicken at any hotel. I must get the modern improvements into their lives. My dear sister's children must not grow up in ignorance of modern improvements."

"I wonder how much taller she expects us to grow!" thought Sue.

"We can't both go away and leave father," Dell said to Sue, while their aunt was napping after breakfast.

"We shall have to draw straws for the polishing chance," said Sue.

"I don't want to be polished if you can't be," Dell said. "I'm afraid I should get to be ashamed of you. I don't want to get so superior that I can't enjoy you."

"Oh, I do want to travel and see something of the world! Neither of us has ever seen a hill, or a river, or a city, or a boat, or a railroad. I think we both might go, and have Aunt Jen come to keep house for us," said Sue.

Sue's plan was decided upon. When the talk about the wardrobe began, the aunt decided in a summary way that the clothing of the "barbarous" West could never be worn in the East. Every thing could be bought ready-made in New York," she said.

"Don't worry; I've got the money deposited in bank to polish Sophy's children with."

In New York, the girls were taken to a hotel which was a revelation of splendor to them. After a bewildering dinner, they drove to a ladies' furnishing store, which was another marvel to Sophy's children. Here expensive outfits were bought; bright and high-colored dresses, shawls, ribbons, hats, etc. Then the girls were entered at a fashionable boarding-school, and the aunt left for her home. Ours were observant girls, with some innate sense of the harmonies. As they dressed for their presentation in the school-room, in the garments and colors the aunt had indicated, there was a distressful uneasiness. They felt in a vague way the dissonance between blue bracelets and Dell's muscular, sun-browned wrists; between Sue's stout fingers and the rubies and emeralds.

"You remember how lovely this looked in the store," Sue said, indicating a lemon sash tie at her throat; "now see how Dutchy it looks."

Dell said she supposed their tastes were not educated to appreciate stylish colors, and that she couldn't help thinking she looked better out in Kansas with a clean calico and a white apron. "And I'm afraid of soiling my things," she sighed, recalling the freedom with which she used to trim her plants and weed her garden and ride over the prairies with never a concern about her frocks.

The girls were in their chamber, waiting for the summons to the school-room, and dreading the entering of that room as they had never dreaded anything before. When, at length, the entrance was made, the alien feeling was as strong and the strangeness as oppressive as though they had stepped into the moon. They did not hear it, they did not see it, but they felt to the heart's quick that a titter went around the room. Each looked into the other's face to give and to get sympathy. The first exercise was in the recitation of Scripture verses, the pupils standing at their desks. Our girls stood up with the rest, realizing the contrast between their gaudy dresses and the chaste, dainty toilets of the other girls.

"I wish we could go back home," said Sue, after school.

"I do wish so, too," said Dell, feeling very drooping. "The fine things that look elegant on these girls make us look like frights."

"I don't know what Aunt Dorothy could mean by getting us such Dutchy things. I hate the sight of them. Never mind, we have health, strength and vigor. I wish we were back in Kansas. How happy we were that morning she came! I'm aching for a sight of the prairie and our true-hearted friends there. It seems so peaceful as I think of it. The noise and motion here make me dizzy. I wish we could get out of it."

"Let's go home!" said Sue, vehemently, a great wave of longing sweeping her heart.

"We can't; we haven't any money, and it would offend Aunt Dorothy to run from her polishing, and father would not forgive us for offending her, with all her money."

"I tell you, Dell," Sue said, with another passionate outburst, "I never will go into that school-room again! Why, this school closes in two weeks! How much polish can we get in two weeks? And what's to become of us left here without money? We had better have been left on an uninhabited island. The teacher told me that we are to wear walking-dresses and simple hats when we go out walking; but we haven't such dresses or simple anything, and we haven't a pair of gloves in all our outfit, or a parasol."

"What could Aunt Dorothy have been thinking about? I think she has acted very queer about this whole matter. Why, we don't even know that she is our aunt. Perhaps we've been betrayed."

"For pity's sake, stop! you will get me frantic. If we could find a shop, we might sell some of these things and get money to go back home; but I couldn't find any thing in this lurching city, and I wouldn't know which way to get out of it. I'm afraid we are lost. I can't help wishing we had never seen Aunt Dorothy."

At this point, the girls were summoned to the parlor to meet Mr. Shipley, lawyer, and went down trembling and wondering. He had received a telegram from his client, Mr. Bean, said, charging him to find two young ladies by the name of Hopkins at school in the city. Inquiries had been made in seventeen schools, and he was happy in having at length found the ladies, "though," he said, "I regret the cause which made the search necessary." By this time Dell and Sue were seared and breathless. Were they to be taken to jail? Perhaps the woman who had put them in the school was a counterfeiter, and by passing money had entangled them. Sue thought.

"I regret the announcement I have to make."

The girls waited with staring eyes, and throbbing hearts for the next words. "Your aunt, Mrs. Dorothy Bean, is a woman of unsound mind, and does strange things. She escaped from her friends, a few days since, and made her way to you in Kansas. As her putting you in this school was an irresponsible act, unsupported by the legal guardian of her property, the only course open to you is to return to your home. You will be furnished money for your return, and I will see that your baggage and tickets are attended to."

"What shall we do with the things aunt bought for us?" said Sue.

"Take them along; they are paid for. Your aunt has been liberally supplied with money."

"Is aunt insane?"

"Not exactly, but irresponsible—queer. She would have given away all her property, had she not been restrained."

"Aunt must be a good woman at heart, if she is queer."

"Polished off and set up," said Dell. They laughed and cried alternately, and felt like two very "queer" girls in a very queer situation.

But the episode bore good fruit, for when Aunt Dorothy died she left them a legacy, which the law allowed because her other relatives did not object.—*Youth's Companion.*

PRACTICAL BOTANY.

A Tragedy Which Demonstrates That It Should Be Taught in Public Schools.

About a fortnight since a little girl aged seven years died at Glasgow, as alleged, from having sucked the bloom of some poisonous wild flower. The child had been taken on a Sunday-school excursion into the country. During their ramblings wild flowers were gathered, and posies were arranged and garlands woven, as is the wont with children set free from the care and discipline of schools and allowed to roam fancy free in meadows and by hedgerows. In their delight at nature's fairest gifts little did the denizens of the big Scotch town dream of the poison that lurks within the spathe of the cuckoo-pint (*Arum maculatum*), or in the clusters of purple blossoms of the woody nightshade (*Solanum dulcamara*). In fact the flower of this plant is so like in form and arrangement to that of its innocent first cousin, the esculent potato, that we can understand how a knowledge of the harmfulness of the culinary tuber may have suggested a reckless indulgence in the flowerets of the former. In these days of school-board taxation, is it too much to ask that our children should be instructed, if only in simple fashion, in the broad principles of botany and zoology, and taught how to recognize the plant that nourishes and the one that kills—the harmless snake and the poisonous adder? It is not necessary to go into technical details and to use harsh-scientific words, to instill into a child's mind that which may be of good service to it when brought in contact with the floral beauties of spring and early summer, or with the berry cluster of a later season. What could be more interesting to a hard-worked, brain-wearied little wanderer in God's garden than to learn the way to recognize the difference between the garish parsley and its deadly relative whose name is the antithesis of him that is wise, or its still more poisonous ally, the classic hemlock, growing in shady nooks. We might mention a hundred other instances—e. g. the creeping, hairy bryony, with its festooned wreaths of scarlet berries, hard by its rival, the common tansy, with leaves of shining green, growing bronzed and somber as the autumn of its vegetable life approaches. We could tell that the simple dropwort or spirea, has a right to have its title disputed by the water dropwort or the hemlock water dropwort, with which it holds no natural affinity. We could warn against the perjury of the gaudy foxglove and the sedate but deadly nightshade, and so on; but enough has been written to merit the sympathy of our Board of National Education, and to make them consider that the fields around us are the true fields of learning.—*London Leader.*

A SMART JUDGE.

How He Succeeded in Ridding His Town of a Confirmed Bum.

Judge H., of Muskegon, at one time a police justice, enjoyed his jokes, which occasionally assumed a practical shape. The judge had been annoyed for a long time by a drunken character named "Eph." He had fined him many times and had sent him to prison frequently without effecting a reform. The judge determined to get rid of him. One day, at the opening of the court, he espied the familiar countenance of "Eph," who had been as usual brought up for drunkenness. Said the judge: "Eph, I perceive you are here again, after my many warnings and advice. I now intend to make an example of you. I will not be again annoyed by your presence. You must die. I shall sentence you to be hung by the neck until you are dead." The judge pronounced the usual sentence and made some touching remarks relating to the prisoner's character and conduct. He made out a document which directed the constable to take the body of Eph to a certain lonely locality near a cemetery and hang him by the neck until he was positively dead.

This was a heavy blow to the prisoner. He appealed for mercy and promised reform, but the judge would not listen to him. He was tied with a slender string and taken out of the court-room, and walked rather reluctantly with the officer towards the place of execution. While on the way the officer was in a dilemma, felt in his pocket and could not find his warrant. He told the prisoner he would go back to the court and get that paper, and ordered him to remain in his tracks and not move until his return.

As soon as the officer was out of "Eph's" sight he easily untied the cord which bound him and struck out on a two-forty pace with his coat tail in a horizontal position, disappeared, and was not seen again in Muskegon.—*Detroit Free Press.*

Under the slow but continuous action of the sulphurous acid thrown in the air of cities by the combustion of coal and the influence of the frequent changes in the degree of atmospheric humidity, it is found that the peroxide of red lead, used in coloring certain placards, is destroyed and sulphated. At the same time the peroxide of lead thus liberated is transformed into an insoluble sulphite, and this salt, being easily analyzed, it is believed that a certain means is thus obtained for determining the condition of the atmosphere in large cities and its relations to the public health.—*Chicago Mail.*

All of the railroads in Louisiana are run at a loss so far as local traffic is concerned.

CHAINS THAT BIND.

How They May Be Struck Off to Personal and General Advantage.

One of the immediate results of modern scientific thought is the deepening sense of the power of heredity and circumstances over individual lives. There is, of course, an immense element of truth in the facts which science has laid bare on this side of human activity, and in the inferences which have been drawn from the facts. No human being is independent of his ancestry, his race or his age. They supply him with the tools with which he works out his destiny. But it is very easy to overstate this truth; and it is constantly overestimated in current literature. This overstatement, or, perhaps, more accurately, this imperfect statement, of the immense force of heredity and surroundings exerts upon many minds a depressing and paralyzing influence. The man who is born with vicious tendencies in his blood, or the man who finds himself on the threshold of his career without the training which other men have received, often feels that defeat is inevitable, and ceases to make any struggle against what he calls destiny. When the teachings of science are interpreted in this way they become not only pernicious, but absolutely false. Society is full of the refutations of any such conclusion as this. Men have risen to the highest places from beginnings, and from the midst of influences, which seemed specially combined to chain them down forever. The artist must work in the material which he finds at hand, but his conception is his own; and that, after all, is the soul of his work. He can not choose his material, but he can always choose the use he will make of it. This is the very citadel of manhood; once stormed and surrendered, the man may exist, but he ceases to live. Men today need to have their faith in their power to surmount circumstances and to create their careers strengthened and deepened. In order that they may work intelligently they need to understand the conditions under which they are compelled to work; they need to know the traits they have inherited, and they need to discern the kind of opportunities at hand; but, above all, they need a deeper and more vital consciousness that they themselves are greater than either inheritance or environment; and that they were born, not to be made by these, but to modify and recast them. Every human life at the bottom is a revolt against its environment; every great reform is a reaction against influences that are at the moment apparently irresistible; every great career is a tremendous struggle against existing things; and yet great reforms are always on the way, and great careers are always being worked out. In every generation there are born hosts of men and women whose great service to society is the modification they make in the existing order of things. They arrive at usefulness, eminence and ability in the face of circumstances; and they attain these things by virtue of the individual power which lies in every human soul. No man is relieved from responsibility because of that which his ancestors have transmitted to him, or because his own age is inhospitable. No man ought to battle because he is beginning the battle against odds. Every man who makes the honest endeavor to live his own life sooner or later strikes off the chains that bind him, and in making himself free becomes a liberating force in the lives of others.—*Christian Union.*

THE TERRIBLE GAGUS.

A Drink Which Gradually Eats Away the Bones of Its Slaves.

A sea-captain who has cruised much in Southern waters gives the following interesting description of the gurgus, and the terrible effects on the human system of drinking its fermented juice: "It is a species of cactus," he explained, "and as I said, grows only, to my knowledge, on the Gaupiti Island. The island is a small one, but it is well populated by natives of the Malay race. In the interior the plant grows wild, flourishing especially in the red, rocky soil. It looks beautiful when growing, as you may judge by the bright hues with which it is spotted.

"A grove of gurgus shrubs is a very pretty sight, but it is the peculiar properties of the plant which distinguish it. Opium is a potent drug, but I am certain that the extract from the gurgus-plant is calculated to effect more damage on the human system. The natives cut the plant in the early spring. After they have gathered a sufficient quantity, they put it in large bowls and crush it with huge stones.

"A gurgus sap runs out freely, and this they collect and drink, after letting it ferment, which it does easily. Within half an hour after imbibing it, the drinker becomes perfectly stupid, and lies around like a log. The spell lasts a day or two more, during which time the natives say they live in a paradise."

"Do white men drink it?"

"I have known sailors to try it, but never twice. Three years ago I had a man in my crew who was driven crazy by one drink."

"What effect does it have upon the natives?"

"If you could see some of the terrible examples of gurgus-drinking in Gaupiti, you would be horrified. The first effect of the liquor is to soften the bones, and gradually eat them away. There are natives there, the victims of the gurgus, who are indeed boneless and unable to walk or use their limbs. Then they begin to wither away, until they die in misery and convulsions."

"How long does it take thus to destroy a human being?"

"That is according to the appetite of the victim to the stuff. Usually two years will finish the hardest man. The sufferings of the slaves to the drink are terrible."—*Youth's Companion.*

VALUE OF FORESTS.

The Influence They Exercise Upon Temperature and Sanitary Conditions.

In the progress of the increase of population in a country, more especially under those circumstances which, taken in the aggregate, we call civilization, there must be more or less interference with natural surface topography. Man is a great disturber of things, and, unfortunately, the changes which he brings about are not always for the better. Among these changes, some of the most important, both in their immediate and in their remote results, are those connected with the destruction of the forests with which large portions of the earth, now comparatively or entirely bare of trees, were once covered. As population increases the need of food supply requires that forests shall give way for agricultural purposes, and a certain amount of destruction is therefore inevitable; but no one who is familiar with the process of stripping the hills and valleys of their natural growth of trees, which has been going on with an accelerating ratio in this country during the past century, can doubt that much of this has been unnecessary, that we have been prodigally wasting our inheritance, and that it is high time that steps were taken not only to prevent further unnecessary destruction, but also, by systematic planting, to repair some of the damage which has been already done. The presence of forests modifies the climate in their immediate vicinity, tending to prevent extremes of temperature, and often of moisture, and in this manner they may affect the character and severity of the diseases of a particular locality. They protect from violent winds, and, to some extent, from malarial influences. Their influence upon temperature is to prevent wide variations between day and night, such as occur upon desert and arid plains; they store heat during the day and radiate it slowly at night. But it is not only to localities in their own immediate vicinity that forests are important. Their value is perhaps even greater to distant regions, the water supply of which they regulate and control. This regulation is effected not so much by any great influence exerted by them upon the total amount of rainfall in their vicinity, or by any effect which they produce upon the total annual evaporation from the surface which they cover, as it is by the fact that they tend to form, by their roots, the plants which flourish in their shade, and the collection of dead leaves, etc., a sort of huge sponge which retains for a time the water falling upon it, and afterward gives it off gradually, supplying springs and streams. In this way they tend to prevent great variations in the size of streams flowing from them, and thus to avert floods and droughts; they are the regulators of the water supply of distant places lying at lower levels in the drainage areas in which they flourish.

In view of these facts, it is evidently important that those parts of the country where culture is either impossible or unprofitable shall be devoted to trees, that a watchful care should be exercised over these regions to prevent unnecessary and useless destruction of the timber by fires, etc., and that the systematic planting of trees to replace those taken for manufacturing purposes should be encouraged as far as possible. This planting of trees must in fact become in this country a commercial necessity at no very distant day, for the prices of the lumber needed for our houses, furniture and the transportation of goods will before long rise to such a point as to make tree culture a profitable and essential branch of industry.—*Sanitary Engineer.*

GRASS FOR PIGS.

A Good Food When a Small Amount of Grain is Added.

In some cases it is not convenient to pasture pigs under such circumstances, they may be kept healthy by feeding succulent grass in pen, with a yard for exercise. If grass in the most succulent condition is given, twenty-five per cent. may be deducted from our figures. A pig will get a large part of its living upon nutritious grass for several months, but if confined wholly to grass will grow too slowly, and will not mature as early as desired, and if the pig is to be kept several months longer to mature, nothing is gained by the grass, as its sappy growth must be ripened on grain, and it often takes more grain than to have ripened it while the grass was fed. One error often made by pig-keepers is, in counting the value of feeders is, in counting the value of growth made upon grass alone as equal to growth made upon grain or grass and grain together. When pigs are pastured upon good grass, and fed a small amount of grain at the same time, the growth made is ripened as fast as made, and if the pigs were sold directly from pasture, would not shrink as in the other case. When pigs have been fed for some months upon grass alone, and are taken from pasture to fatten, it is often found that they will not gain in weight on grain feeding for several weeks, because the grain is all used to ripen the sappy growth upon grass; therefore, pigs should always be fed grain with grass.—*National Live-Stock Journal.*

A couple of strangers recently drove up to the house of an old gentleman at Parkersburg, W. Va., and told him they had drawn \$1,000 in a lottery, and that if he would advance \$100 commission due on the ticket they would divide with him. He thought this a neat proposition, so he drew up his note for \$100, had it indorsed by a neighbor, and the bunco men rode off satisfied.

It is as necessary that a calf should be halter-broken as that a colt should be. The time to do both is when the animals are young. A cow that will lead easily is much less troublesome to manage under any circumstances.—*Boston Post.*

FACTS FOR FARMERS.

An application of potash soap will restore to rough trunks and branches of orchard trees their original smoothness.—*Troy Times.*

Land plowed when it is too wet becomes cloddy and may be so bad to such a degree that years of soil will not effect restoration.—*Knoxville.*

The farmer who worries the least, and does more work than his neighbor with less trouble apparently, is the one who is never behind with his work.—*Troy Times.*

The following are said to be the symptoms of hog cholera: Sopping ears, low-hanging head, diarrhoea, vomiting, rapid breath and an aversion to light.—*N. E. Farmer.*

When you make a drain from the manure heap to make way for the escape of the liquids you are lowering the riches of the farm to some way.—*Western Farmer.*

If seed-corn is to be turned so present it from being eaten by insects or birds it should be first soaked so that the grains have enough moisture inside to sprout them.—*Prairie Farmer.*

We doubt very much if there be any real profit in farmers or farmers' men working hard during hours of the day immediately after dinner, and remembering the horse, has a good New Yorker.

Wheat cut before the last hard frosts, say at the time when it is passing from the dough state, will make better flour and more of it than wheat hardened to the last degree of ripeness.—*Albany Journal.*

Where there is no shadow in the pasture or barnyard, a few trees so arranged as to hold brush, or a piece of muslin, stretched, will be found of great service and protection against extreme heat.—*Troy, Field and Farm.*

The London *Agricultural Gazette* says there are individual cattle, sheep and pigs which inevitably put their pockets. The *Breeders' Gazette* says that there is a whole gospel in their behavior. The moral is: Supply their places with better ones, and the poorer done the better.

It has been determined by experiment that meal will pass through the digestive organs quicker than hay, and that if the meal is fed to an animal on an empty stomach it passes away before it is fully digested, but if fed after hay it becomes mingled with it, and more benefit is derived. When oil-cake was added to the ration, instead of getting six and one-half pounds of butter, eight and one-half pounds were obtained in one instance. When the selection of cows has been judged by the extra richness of the milk in butter will naturally follow the use of rich feed to a larger degree than with the ordinary cow. Each cow has her own peculiarities in this direction.—*Chicago Tribune.*

RULES FOR HIGHWAYS.

Injunctions Whose Observance Would Add to the Joy of Country Life.

1. Make the public roads neat and smooth, and pleasant and profitable to travelers and in driving to market.
2. Never throw rubbish of any kind into highways in order to get rid of it, nor deposit coal, wood, logs or other materials, to frighten passing horses.
3. All owners who build their houses facing square the public roads, should show at least the same respect to these roads that they do to their own fields, by excluding all weeds.
4. Remove all loose stones from the wheel-track once a month, and all fixed stones, which strike and break the wheels, jar the loads, rack the harness and tire the horses.
5. When fixed stones can not be removed, cover them well with gravel or other road material.
6. Remember that a fixed stone may strike different wheels a thousand times like a sledge hammer, and cause a hundred dollars of damage. To remove it might cost five cents.
7. Never make a highway of muck, sods or soft material scraped from the side ditches, which is worked into deep mud in wet weather, but draw them into the barn-yard for the compost heap.
8. Where the road-bed has not a dry bottom, cut a ditch in the middle three feet deep, and lengthwise with it, with side escape ditches at depression, and fill it with gravel or broken stone, coarse below and finer near the top.
9. Plant shade-trees three or four rods apart along the line, to allow air to circulate, sun to shine and mud to dry.
10. Keep the roadside smooth, mow the grass for hay, and thus secure a good track when the center of the road is incumbered with impassable snow-drifts in winter.
11. In windy places, make the windward road-edges of barbed-wire, to prevent the accumulation of drifts of snow.
12. Never make the public highway a barn-yard, nor leave wagons, plows and machines to encumber the road.
13. Never endanger those who travel by driving unmanageable or fractious horses to frighten and annoy other horses. Sell the unruly animals, or put them to steady horse labor with other horses.
14. Never drive horses across a railway without first looking both ways, or if in the dark, without listening. It is better to take this care one hundred times than to be crushed by a locomotive once by its neglect.
15. Never keep a noisy barking dog, to bark at quiet passengers or passing teams, to terrify horses and cause them to run away, upset carriages and break limbs.

The observance of these injunctions will give smooth, hard, satisfactory roads for farmers and travelers to pass over, bring their farms nearer to market, increase the value of their farms, make pleasant neighbors, and attract boys and young men to the country.—*Country Gentleman.*