nonproductive, and hence becomes a dangerous and continued stumbling-block in the way to success. On the other hand, the man who selects poor and cheaper land is in no better position, for he is conpelled to meet an additional outlay in the purchase of fertilizing matter before he can harvest a single respectable crop. Nor is this all: for the man who owns and indifferently cultivates a large tract of land is compelled to meet many expenses which he would not encounter on a smaller tract, and from which he would reap the same returns. Why, for instance, should a wise farmer pay taxes and other heavy expenses on twice as much land as he can cultivate with profit? It is the small, rich, closely cultivated tracts that pay the farmer best. The productiveness of well-tilled land is almost unlimited, and if the careful farmer can grow thirty bushels of wheat, or one hundred bushels of corn, or forty bushels of oats, or two hundred bushels of potatoes, or three tons of hay, on one acre, when intelligently cultivated, would it not be the height of blind folly to go over three or four acres to gather the same amount of crops which can be raised on one acre? Suppose the farmer owns but fifty acres, six acres of which is timber land; on this small farm he could have eight acres in wheat, nine in corn, five in oats, two in rye, one in buckwheat, one in potatoes, seven in grass, seven in pasture, three in orchard, and one acre for house, barn and out-buildings, and garden. Here is all the variety of crops provided for, and, if highly cultivated, would feed the family and give a surplus for market, from which sufficient could be saved to apply to any necessary or useful purpose. In cultivating this small tract, the farmer would require the assistance of a stout industrious youth; he should keep two or three good horses or mules, mares would be most profitable, as they, if well cared for, would raise colts annually. He should keep four or five good milch cows, and raise all the likely heifer calves; he should also keep a few sheep and swine, and poultry, all of which should be good stock. Then, as the annual products of this small farm enable him to do so, he can produce additional land, and with the same care and industry, make farming on a larger scale as profitable as when he owned but fifty acres. But, in order to be successful in the way that has been here indicated, the man who takes to farming as an occupation must have brain, push, and untiring industry, or he must prove an unfortunate failure—a drone in the hive of busy workers.

Statistician Dodge, of the United States Agricultural Department, under the heading of A. burden upon Agriculture, says: "A mortgage is a blessing when it enables a poor industrious young man to secure a home and a profitable business, and to pay for it in sure and easy installments; it is a withering curse when it makes production dear and difficult, consumes a crop before it is made, and renders indebtedness hopeless."

FARMERS' BOYS.

By Mrs. F. M. Leighton, Glenburn, Pa.

[Read at the Scranton meeting.]

I am happy in being permitted to address you on another subject than the one assigned me in your programme; one more congenial, and suggested by a mother's partial fondness for a class in which you are all interested, but whose claims seem often to take a second place in the farmer's mind or in his plans of life, namely: "Farmers' Boys." By this I mean, not the farm boy, who works upon the farm to-day, on the railway to-morrow, or in some factory or the mines, but the farmers' sons, the boys who are in training for the business of farming, and who are expected to fill their fathers' places on the farm, in

the family, and in the State. You, brother-farmers, are so much absorbed in your business; your interests are so widespread and various; the rush of each season's business crowding so closely on the one that follows. The magnitude of the main work, and the numberless small items to be looked after, each one of which has a consequence not to be set aside; the melancholy scarcity of reliable help, which makes it imperative that not only the farmer's eye must be upon all the work, but his hand must often supply the motive power; the active enemies he has to contend with-enemies in the air, in the earth, and in the waters under the earth—all these give the boys a chance of being neglected, or, if large enough to work, of being crowded in the great mill whose slow grinding has crushed out of all fair proportions many a bright young life. Many noble boys, with perfectly fashioned bodies, and active, vigorous minds, have been, by long continued, unremitting toil, dwarfed and stunted in physical development and shut out from other channels, their whole mental activity turned to money-getting. Like the man in the great allegory, they go on raking straws all their lives, so satisfied with their muck-rake that the celestial crown of happiness and

usefulness within their reach is unsought and unwon. We believe in the wholesome influence of regular employment, in the beneficent effects which follow systematic, well directed work, but such employment never caused the bowed frame, the slouching gait, the untidy person, and sullen, lowering eye and brow of some hapless farmer boys. A sense of injustice has soured and embittered what, under brighter and better conditions, would have been a happy disposition, and marred what should have been a well rounded life. We wish for more consideration for the boys on the farm, alike removed from the exacting severity which wears out the hope and courage of the boy, or, what is worse, the foolish indulgence which fosters idleness, and, by a large allowance of pocket-money, opens all the avenues to temptation. The consideration which makes a confidante and companion of your son, which invites his confidence and takes an interest in his plans, will bear precious fruit in the near future, a hundred fold.

The hope of the world is in the farmer boys. Nowhere else are found the conditions so favorable to the growth and development of the truly great man. Here is the perfect situation named in the words of Ager, even the prophesy, "Give me neither poverty nor riches," with the sordid taint of the one, nor the cankering care of the other. For around the farm homestead gather all the golden

chances for the pleasantest life in the world.

No foul miasmatic odors from filthy streets or unwholesome manufactories; but the fresh air of heaven is the farmer boy's inheritance, as well as the pure water of the well or spring. No poisonous liquid filtered through miles of unwholesome pipes or drainings from death-dealing sewage, weaken and undermine his constitution, but the small boy on the farm "groweth up like a tree planted by the rivers of water."

The pre-natal influences are here of the happiest kind. He does not inherit neuralgia and weak nerves. He comes not to cold arms, and a colder heart, which has been calculating for months how many weeks the new-comer would keep her from the society which is her life itself. The echo of her heart is what our first mother said, "I have gotten me a man from the Lord!" He is not condemned to the tender mercies of a hired nurse, and brought up on patent baby food, city milk, or soothing syrup. He drinks in tender love and human kindness with his mother's milk, and grows up by her side "a well spring of pleasure."

Inexpressibly sweet and pleasant is the period of the farmer boy's childhood. From morning till evening, in the free out-door air, he makes companions and friends of the birds and small animals, who grow accustomed to his presence, and lose their habitual shyness at his near approach. By and by he will begin to exercise his muscles in useful work, learning habits of order and method by the regular recurring duties of the day. His sympathies are drawn out by the

helpless dumb animals which look to him for food and care.

I have seen a small boy, less than five years old, whose greatest delight was to go to the barn with the hired man before daylight in the winter mornings, to give the cattle food. He would dress himself with little cap and mittens all ready, and hasten to be first at the barn to greet, with his merry good morning, the old oxen, who seemed to know him, and, as he assured his mother, "Laughed when he gave them food."

At six years he goes to school, and, of course, knows his alphabet, and can read a little, but he is rather a trial than otherwise for the first year or two to his teacher. He loves not the confinement of the school-room, nor the bell which calls him from recess; but he loves to make dams in the brooks, to climb trees, to search for curious things, either plants or stones, or young animals in odd nooks. It is happy for the boy and his parents if there is a teacher on hand at this juncture, who knows the pleasant and interesting pathway to the temple of learning and knowledge, for when once his feet have fairly entered

upon it, he will follow it with a zeal that insures success.

The winter is the season of the farmer boy's schooling, and the multifarious duties of the farm in the winter morning allow no dallying. He must swiftly go the rounds, and there is no fear of indigestion, even if he eats his warm breakfast hastily. He changes his clothes, for he will not carry the odors of the stable to the school-room. When our boy is ready for school, the season is apparent for the many pleasant things which have been said of the farmer boy being too large for his clothes. The suit he is dressed in was worn to church and Sundayschool last year, will do school duty this season, and be worn out, with many supplemental patches, in the garden, corn, and potato fields next summer. But our boy, with books and slate, is ready for school. He is careful of his slate, for it is covered with examples wrought out with much pains-taking last evening, and he only waits to kiss his mother and be off. She knows that he will be a credit to himself and her, and a thread of gold is woven into the hard pattern of the work that day.

There is another sort of farmer boy, who does not love his book. As bright and diligent in his farm tasks, the whole routine of school-life is irksome to him. He is dreaming of what he will do when he is a man—with a great farm, with fine horses, nice carriage, herds of

cows, and flocks of sheep. When the call to class is sounded in his ear he is only half awake, and surely he drifts to the foot of the class. He gets through the term as best he may and welcomes with infinite joy the blue-birds and robins. Sweet is their song to him as, the sap of the sugar maple. You must give this boy a great deal of active work to do, work that requires skill and responsibility. Listen to his plans, sympathize with him, but require of him daily to spend some time in reading. Look to it evenings and rainy days that he has well-selected, pleasant books. Persevere till he has acquired a taste for reading, then he is safe. It sometimes takes long-suffering patience to accomplish this, but there must be no failure. The boy who will not read is a prey to temptation, and is in danger of becoming a bad, as well as an ignorant, man.

Give him books to the verge of extravagance. Biographies of great and good men will encourage him to go and do likewise. Poetry and standard works of fiction will do more to raise the head and shoulders of the plodding farmer boy than plenty of money in his purse without it. A few good papers and magazines are necessary to the outfit, and will fill the hours of leisure, and keep our boy abreast of the times. Above all, teach him early to study the sacred Scriptures, assured that if the law of God is in his heart, none of his steps shall slide.

We would have the farm-house made pretty and attractive. Within and without everything decent and in order—in full keeping with the sweet freshness of the fields and woods. But the fatal mistake has often been made by farmers, when the restless time comes, as it will come to most children. In a fond desire to make them happy, a new departure is taken in the line of house decoration. Following the advice so freely thrown out by most periodicals, following also the plans which look so irresistible on paper, the farmer soon finds himself in a maze from which there is no escape, except by borrowing on bond and mortgage. It seems a smooth and easy road at first, but soon becomes very up-hill work.

It was in lifting a burden like this that Lamartine cried out: "If time has wings, the interest of a principal soon to become due has the swiftness and weight of a rail-car." Like time and tide, it will wait for no man, and the boys must often leave the farm, where every tree and shrub is dear to them, and go to other kinds of labor, unwhole-some or dangerous, which bring a quicker return. Give to your children all you can, work for them with a love that knows no stint, but borrow not, except as a forlorn hope. Debt has driven more boys and

girls from the farm than the dread of hard work.

Much has been said, and wisely, upon the education of farmers' sons. Comprehensive courses of study have been marked out for them; institutions of learning have been founded for them; but it seems a mistake to send the young man away from the farm for four years, unless the studies and associations are such as will help him in the life he is to lead. Many a rich farmer, whose early life was marked by hardships, in mistaken tenderness, after years of costly preparation, has sent his son to college, and could have said, when receiving him back after graduation, like a father of recent times, "Lo! we have thrown our money into the fire, and there has come out this calf!" In these days of excellent public schools, convenient academies, and cheap books, there is no good excuse for ignorance.

The average farmer boy of twelve years will keep his place in his class, if he leaves school at April first and goes back at November,

with the average town lad. And is there a break or suspension in his education? Lessons as interesting and useful as any in botany he learns in the growth and habits of plants, and the open page of natural history is ever before him. Above all, he is preparing to solve the great problem of learning to live—learning how to become a self-reliant, self-supporting man, thereby helping to balance, in the economy of life, the great multitude of incapables sent forth by our institutions of learning every year.

If the boy has a marked taste for letters; if he eagerly seeks after, and uses, all the means within his reach; above all, if he is willing to earn his scholarship, do not tie him to the farm till he breaks his tether; let him go with a blessing, and help all you can. Do not let him work himself to death while you are making costly experiments on the farm with new implements, fancy stock, reclaiming some waste places, either barren or boggy, or the numberless ways in which farmers love to spend their money. Your investment in this son's education will be a paying one; if he lives, he will do the world good, and honor you; if not, his memory will be a treasure incorruptible. unwasting, everlasting.

If your son has a strong desire for any trade or industry, though your heart's desire is for him to till the paternal acres, let him go. The hard work of the farm would be intolerable in discontent, and the habits and training you have given him will insure success in whatever business he will engage, whether in school or college, in merchandise, in the work-shop, or in any of the walks of life.

There is much hard work to be done in this world for which the peculiar training of our farmer boy has fitted him. Who so worthy to fill places of trust and responsibility as the one used to self-denial from his boyhood? The great work of temperance is to be carried on, not by the votes of women, but by their influence on the minds of the little boys. The woman whose vote would be worth anything will raise temperance men; men who will not sign a petition for a liquor-seller's license; men who will neither give nor take a bribe.

To the house-worshipping mothers, we have a word to say. We know how incompatible is our farmer boy with the perfect housekeeping, which is her soul's delight. She almost dreads his home-coming from the field. Of course he will wash his hands and face, but he has no time, is too tired to make much change in his toilet, and he has little reverence for the crazy quilt which adorns the sitting-room couch. Dear to the heart of a good house-wife is the spotless kitchen floor. All the old traditions tell of it, but much annoyance and sorrow have come from it. The corner grocery and village store has filled up the precious hours of many a bright boy, driven from home by the frown on his mother's face, who saw that the speckless purity of her idol was threatened. A young man, raised in this county, was heard to say that his idea of home was shivering on a door-mat, afraid to move lest he might soil his mother's floor, and his youthful idea of happiness was getting safely and speedily out of that house. Poor boy! In the wide world I fear he has found neither home nor happiness.

There is a great need in the boy's nature which must be met, and there is no safeguard we can throw around him like a full and innocent social life. Many a restless growing boy, feeling a necessity laid upon him to go somewhere, would not have dropped into the tavern if he had known just where to visit boys and girls, and be welcome.

you must make your home pleasant and attractive to the young

Cultivate a full and suitable circle of young friends, and make all such feel that they are looked for at your house, expected, and fully welcome. Do not be displeased if your son sometimes desires to shorten the day's labor to attend some festal gathering with which perhaps you have no sympathy, and grudge him not the national holidays. You never had enough of them in your young days, and in this respect, your last days may be your best.

It is sad to see the silent, quiet homes that a few years since were

running over with the joys of careless happy children.

It is sad to see old men tilling their farms with only alien help, but the sons may come back. "There is hope of a tree, if it be cut down, that it will spread again, and that the tender branch thereof will not cease. Though the root thereof wax old in the ground, yet, through the scent of waters, it will bud, and bring forth boughs like a plant."

So the world-weary man, whose heart, grown dry in political strife and money-getting, as the dead root in the ground, may come back to life and freshness of feeling, with the dew and the rain of the blessed

country life.

It may be, also, that the boy who went away from us in the bright sunlight with such confidence of success, has overtaxed his powers, or, in some inscrutable event, has fallen in the race, and will come back to us in the deep shadows, to be buried with our hopes. There is comfort and cure for sorrow in the cultivation of the soil. The sharpest sting of disappointment loses its point when we have no time to brood over it.

In constant occupation, close to the great heart of nature, we are comforted as "one whom his mother comforteth."

FARMERS' MISTAKES.

By E. M. Tewksbury, Catawissa, Pa.

[Read at the Bloomsburg meeting.]

When the Secretary of the State Board of Agriculture requested me to furnish an essay for this meeting I began to cudgel my brains for a subject, and I concluded there had been a mistake made, and I said to myself, farmers are continually making mistakes. So I put the

two ideas together, and christened it, "Farmers' Mistakes."

That farmers make mistakes, and very many of them, is patent to the most casual observer, but that he makes more mistakes than others in the various avocations of life would be saying too much, perhaps. I shall not attempt a general and detailed discussion of all the mistakes mentioned by me, which are not merely theoretical mistakes, but such as a life of close relationship with the farm and actual occupancy of the same have led me to observe.

That of Birth. There seems, generally, a disinclination on the part of most persons to pursue the avocation in which they are born, and, if pursued, a continual desire to change; hence, I observe that in nine tenths of our farmers that it is a mistake that they were born upon the farm. Other scenes are more inviting-other walks in