

THE PLOWMAN.

First in the field before the reddening sun,
Last in the shadows when the day is done,
Line after line, along the bursting sod,
Marks the broad acres where his feet have trod,
Still where he treads the stubborn clods divide,
The smooth, frost-furrow opens deep and wide,
Matted and dense the tangled turf upheaves,
Mellow and dark the ridgy cornfield crevasses.
Up the steep hillside, where the laboring train
Slants the long track that scores the level plain,
Through the moist valley, clogged with oozy clay,
The patient convoy breaks its destined way.
At every turn the loosening chains resound,
The swinging plowshares circles glistening round,
Till the wide field one billowy waste appears,
And wearied hands unbind the panting steers.

These are the hands whose sturdy labor brings
The peasant's food, the golden pomp of kings.
This is the page whose letters shall be seen
Changed by the sun to words of living green.
This is the scholar whose immortal pen
Spells the first lesson, hunger taught to men.
These are the lines that heaven commanded
To show on his deed—the charter of the soil
O graceful mother, whose benignant breast
Wakes us to life and lulls us all to rest,
How the sweet features, kind to every clime,
Mock with their smile the wrinkled front of time?

We stain thy flowers—they blossom o'er the
dew—
We rend thy bosom, and it gives us bread.
O'er the red field that trampling life has torn
Waves the green plumage of the tasseled corn.
Our maddening conflicts scar thy fairest plain.
Still thy soft answer is the growing grain.
Yet, O our mother, while uncounted charms
Steal round our hearts in thine embracing
arms,
Let not our virtues in thy love decay,
And thy fond sweetness waste our strength
away.

—Oliver Wendell Holmes.

A YANKEE GOLD-MINE.

Gold has never been found in the quartz that abounded in a certain portion of the State of Massachusetts, but as old Squire Strayer recently said: "That doesn't prove that there's none there. No gold was found in California till about 50 years ago, though that country had been almost three centuries under the Spaniards—the most persistent gold-hunting race that the world ever knew. Before the California dust was found, New Hampshire had a respectable place among gold-producing States; if there's gold in New Hampshire, why not in Massachusetts?"

Strayer himself had been one of the Argonauts of '49 before he came of age, and for all the years that followed he had been of the opinion that had he not been recalled to the old homestead when his father died he would have become rich through finding precious metal. In the very gulch in which he was working when the fateful black-bordered letter reached him his associates afterward found "indications" from which several fortunes were evolved. A shelf in the Squire's room, in the old farmhouse, was covered with bits of ore from that very gulch, and one piece had been handled contentedly and often.

Like a loyal son and brother he had done his full duty on the old farm. He had married and reared a family that everyone respected; he had been a good citizen, and at times a magistrate to the entire satisfaction of his neighbors; but in his dreams by night and by day his mind went back to the California gulches, with their golden sands and rusty quartz. In the hilly country near Strayer farm there was scarcely a reddish-white ledge that had not been chipped by the little hammer which he habitually carried.

His neighbors laughed at him for his hobby; sometimes he laughed at himself; but habits strengthen with age, so when the old man's wife had passed away and all his children except his daughter Raye, who kept house for him, had married, and the land of the farm had been leased for enough money to support the father and daughter in the simple manner to which they were accustomed, the Squire's gold-hunting fever was indulged until it became chronic. Even Raye became infected by it, and found a possible gold mine a delightful subject for her own day dreams.

Suddenly there came to Raye and her father a week full of excitement. The Squire had previously found a thin seam of quartz that looked remarkably like some of the California specimens; he had sent some of the rock to a Boston assayer, who reported a trace of gold. By the very mail-coach that brought this report came Ethan Overford, son of one of the Squire's schoolmates who had gone West before the war and became a cattle king and millionaire. His son had come east to purchase an estate for his father, who wished to pass his remaining days amid the scenes of his childhood.

Young Overford, who had inherited the money-making faculty, called on his father's old friend, and, with the manners of a gentleman, and also the peculiar Western quality of frankness, made himself heartily welcome. He called again to consult the Squire about desirable building sites that might possibly be purchased; then he accepted a special invitation to call the next day for the purpose of looking at the Squire's promising quartz vein, having admitted that he had dabbled with some success in Colorado gold "prospects." On the fourth day he reappeared to ask whether the Squire knew any trustworthy local stonemasons, for his father talked of building a mansion of the rough stone of the country. He was back again in twenty-four hours to show a letter from his father. On the sixth day he again strolled out to the Strayer farm, with no excuse that he could put to words, but by that time the Squire suspected, and Raye knew, the cause of his frequent visits.

It was dreadful; it was also delightful. There had been no lack of suitors at the old farm, for Raye, besides being handsome and clever, had been a woman several years, and her father was as well-to-do as any of his neighbors. She had always said, "No, I never wish much regret, and always on the ground that her father desired her entire attention; but never before had an admirer come in the dress and manner of a man of the world, and with a moderate fortune of his own and another fortune in prospect, nor had any one brought into the home so many quiet re-velations of the great outer world in which New Englanders have all other people are persistently interested.

Soon there came a day when, after a long political chat with the Squire, Overford suddenly and formally changed the subject of conversation by asking permission to pay his addresses to Raye.

"You're the son of an old acquaintance," said the Squire, "and 'tis plain to see that you're very much of a man, and 'tis 'tween strange that you should admire Raye, but I don't believe in poor men's daughters marrying rich. I've seen some cases of it, and they all turned out bad."

"But, Squire," argued the young man, "there's less difference than you imagine. I don't pass for a rich man out in Colorado. Besides, money counts only for what it buys. Your house contains more comforts and pretty things than our place on the ranch, and your daughter probably has better clothes and more refined society than my sisters have."

"Perhaps—perhaps," the Squire replied; "but young men, when they marry, don't stick to the simple ways of their parents—not if they can help it, as 'tis plain to see you can. My other gals have been as well off as the men they married; their husbands' folks and friends couldn't throw it at 'em that they hadn't anything but what their husbands gave 'em. Neither Raye nor any of her folks could ever stand that sort of talk, even if they didn't hear it, but merely knew it went on behind their backs."

"You're too much of a man to lose your head and heart over an old gal—even one as smart and good-looking as my daughter. There are nice gals in every set, and 'tis only fair to yourself, and to your wife that is to be, that you marry some one who's used to plenty of money and to ways of spending it."

Overford protested earnestly, though respectfully. The Squire listened kindly, but remained obdurate. As Overford walked away Raye came upon the piazza and looked reproachfully at her father.

"You overheard what was being said?" queried the Squire.

"No," Raye replied, "but I could imagine it—I had to send him to you—and he has gone without saying good-by."

"He hasn't gone far, pet, and what I said isn't going to keep him from coming here. He's a pleasant acquaintance; I wish we had more of the same kind. I hope his father and the family will come into the neighborhood; if his sisters are anything like him they'll be good company for you."

Raye did not answer, nor did her countenance change. Her father put his arm around her and said tenderly:

"You wouldn't enjoy being a poor gal married into a rich family. You've heard talk about some such gals, haven't you?"

"Yes," assented Raye, but her expression remained fixed, even after her father had kissed her.

True to the Squire's prediction, young Overford soon called again; his excuse was that he thought he had heard the sound of rock-blasting, and it really made him feel homesick. He found the Squire at the ledge, looking at some newly fractured bits of quartz.

"Your eyes are younger than mine," said the old man, "and you know far more of this kind of business than I do. Take this magnifying glass and see if you find any signs."

"I can't see any free gold," Overford replied after close scrutiny; "but that proves nothing. Let me send some specimens to an assayer who has done a lot of work for me. Gold has no end of ways of hiding in rock; not all assays find it, even when it's there."

"That Boston man found it," said the Squire, "but I've wondered about ten times a day whether I didn't accidentally get one of the little California bits with my own by mistake. I often compared them with one another."

The young man interested himself so greatly in the matter that he carried a small sack of the rock to New York within a few days, and when he returned he brought from a prominent assayer a report showing more than a trace of gold; the proportion of precious metal was very small—too small to justify working, but Overford insisted that the outlook was cheering.

"This report is so much better than that from Boston that it seems to promise richer rock as the depth increases; that's the way we should regard it if the vein were in Colorado. Why not drill farther back on the ledge, make a large blast, open up a big breast of rock, and get still another assay? I'll help you at the work, and I shall feel justified in asking for a reconsideration if you suddenly find yourself owner of a paying gold mine."

The Squire's face wrinkled shrewdly as he drew:

"You Western men have a marvelously practical way of putting things, and—"

Then he stopped, for his heart was dancing restlessly. He half repented of his decision; for Raye's sake might the vein prove, if not a bonanza, at least a profitable producer?

Together the two men worked for several days, and the young man noted with great satisfaction that when he accompanied the Squire to midday dinner his flamboyant shirt and red-tinted complexion did not lessen the welcoming look in Raye's eyes. Near the close of the fourth day a great cartridge of giant powder was lowered into the hole, the wire of the battery was carried to a safe distance, and Overford said:

"Here's hoping! Let's shake hands on it. Now touch the button."

The Squire's hand trembled so violently that twice his finger missed the button; but immediately after the third attempt there was a mighty roar, the earth shook, and the Squire hurried forward so rapidly that the younger man could not overtake him. Both men stopped an instant at the edge of the little cliff created by the blast; then both scrambled to the foot of it and began to scrutinize the face of the rock.

"See anything—see anything?" asked the Squire eagerly.

"There's a possibility," Overford replied. "You see the rock is not all of the same quality—these joints, where the vein has been broken for ages, and into which water has trickled and stayed, ought to show the free gold, if there is any. Have you a magnifying glass with you?"

The Squire handed such that it could scarcely find his pocket; meanwhile Overford was stooping over the debris and picking up small bits of partly decomposed quartz. He took the glass, examined several specimens and suddenly placed one of them and the glass in the Squire's hands saying:

"Look at that!"

Quickly the Squire looked. He saw some bright specks; they were tiny, but they were yellow.

"Hurrah!" he fairly shouted. "Thank Heaven! How many dollars—how good is that?" the Squire asked. "I mean, how rich ought it to run to the ton? The grains are dreadful small."

"Yes, but if there are even two ounces of them to a whole ton of rock—two ounces of free-milling ore—you've struck a remarkably good thing, considering that it's in a country where labor is cheap, machinery and good fuel near at hand, and transportation charges almost nothing." Then Overford resumed his search, and the Squire, on his hands and knees and with his spectacles on his nose, assisted with

such success that he himself soon found bits of glittering ore. Suddenly he arose to his feet and said:

"I must go home—at once!" Raye must know of this."

"Mayn't I go with you?" asked Overford. The Squire looked keenly into the young man's eyes and instant and replied:

"Come along! I owe much of this to you, but remember that this isn't a gold mine—not yet."

"I shan't take advantage of your kindness," said Overford; nevertheless, he was as happy as the Squire himself when Raye's eyes brightened over the gold and then melted as they looked gratefully and impartially at both men.

"Now, Squire," said Overford, after a few blissful moments, "business is business, and as I've had considerable experience in this line, let me offer you a little advice. You can't do anything with your mine, so bank what you get, and invest that money in profitable ways. If you haven't the money, you can do one of two things—form a company and sell stock, or sell a quarter or third interest—keeping the controlling interest yourself—to men who are in the business and know how to work such a property. You're welcome to any assistance that my experience and acquaintance can give you."

"I thank you—thank you. I must accept it. Which of the two plans would be the better?"

"That of selling an interest; it's the fairest and safest way. There's never been a great gold yield from any New England mine, so bank what you get, and afterward take your share of the profits. Let me take some specimens of the rock—the worst as well as the best—down to New York, and see what assays and offers I can get you. My services won't cost you anything, and—well, you know I've personal reasons for wishing you to make a fortune out of your find."

Overford returned to the ledge, collected some specimens, and hurried to the city. In three days he was back with reports by three different assays showing a possible yield varying from eight to thirty-five dollars to the ton of rock. Still more to the point, brought a letter which the Squire read aloud as follows:

LYMAN STRAYER, Esq.
Dear Sir: Having seen some of the rock prospects, and having also examined the assayers' reports and consulted our old friend and customer, Mr. Overford, we are willing to give you the property on condition that we shall have exclusive control of developing and operating, you to have access to the works and accounts at any times, either in person or by agent.

If such conditions should be satisfactory to you, we will pay fifty thousand dollars for a third interest in the mine, and the same to be given to you upon your signing papers (also in Mr. Overford's hands) springing above mentioned agreement.

Yours Sincerely,
QUICK & TRUETT.

"Fifty thousand dollars!" gasped the Squire, staring joyously at his daughter.

"Fifty thousand dollars," murmured Raye. "Now, you dear man, you must take a long rest and a long look at the world."

"Not!!" exclaimed the old man, whose face had become twenty years younger in a single minute. "I'll do some more prospecting at once—yes, this very day."

"Go easy, Squire; take a rest," suggested the young man as he displayed the check, which the old man and his daughter devoured with their eyes. "Bless me! If ever I get fifty thousand dollars so easily I shall think I've done enough work for one day."

"I really do suppose, Overford," said the Squire, somewhat sheepishly, "that I'm acting like a fool, but I assure you that gold mines are scarce in this part of the world, and so are big checks. Do you advise me to accept this offer?"

"Indeed I do. Out West it's the rule to accept whatever cash can be gotten out of a gold proposition. All that you or any other man knows of a gold property is what is in plain sight, so take the check, sign the papers, and hope for whatever else may be got out of it."

Squire took the check. Raye brought pen and ink and leaned over her father as he signed the agreement; then she looked gratefully at Overford—only an instant, yet long enough to make the young man ridiculously happy.

"Now, Squire," said Overford, as the old man dropped his pen and again contemplated the check, "till about fair play, I've helped you to open and sell your mine, so why won't you pack a few things, and run out to Colorado with me, and look at a few prospect holes of my own? A man who's smart enough to find gold in this part of New England ought to be worth millions, to me and to himself, in Colorado."

"I'll like nothing better than to turn a turfed loose in a gold country," the Squire replied; "but I can't leave Raye."

"I didn't ask you to leave her," said Overford, looking appealingly at the girl, who quickly vanished. "Take her with you; a young woman of her sense and spirit and character would enjoy so great a change quite as much as you. Besides, I'm impatient to have returned her prospective sisters-in-law, and my parents."

The Squire smiled quizzically as he replied:

"You Westerners are very persistent people."

"There'd be no West if we weren't," said Overford. "Returning to the previous question, however, you're rich enough now, ain't you, to allow me to try to become your son-in-law?"

"There are lots of other fine gals in the world. Sure you won't change your mind some day?"

"Not till the end of eternity."

"If I'm well, I don't suppose it matters much what you may do then."

The Strayer went West; afterward all the Overfords came East to the wedding, but before that event the Squire had operated a little, and successfully, in mining properties, so he was once more a young man in feeling and longed to go West once more and "grow up with the country;" and so returned to Colorado and worked and prospered in his liking. A few months after his daughter and her husband had returned from a long honey-moon trip in Europe, and the two men sat together one morning over their mail, the Squire remarked that the purchasers of an interest in his New England mine had not yet paid anything on account of his share of the profits.

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who had learned much of the ways of tricky dealers in mining property, "I do believe you 'salded' that mine!"

"Father-in-law," the young man replied, "I cannot tell a lie, especially after it has been detected in advance. I did fire the big blast I had two pockets full of small bits of Colorado pay-ore, which had been carefully selected from a New York mine-broker's specimens to match your quartz in color and general appearance. After the blast I slyly sprinkled them where—well, where they would do most good."

"And in that way you helped me, an honest man, to swindle the firm that paid me fifty thousand for a third interest."

"Oh, no; not swindle. The buyers haven't complained have they?"

"No, that makes the operation no less dishonest. I must return the money," sighed the Squire. "It has trebled in my hands since I've been here, yet I hate to let the fifty thousand go."

"Don't pay it if you feel that way."

"But I must. I can't feel honest again until I've done it."

"Must, eh? Well, if you're in such a hurry about it, pay it through your daughter."

"Son-in-law," said the Squire sternly, "do you mean to tell me that my daughter was a party to that shameful fraud?"

"No."

"Then what do you mean?"

"Simply that your daughter Raye's husband was the real and only purchaser of your supposed gold mine. Quick & Truett were merely my agents."

The Squire pushed his hat to the back of his head and sprang toward Overford as if to strike him. Suddenly he dropped his hands, looked into the manly, smiling face before him and muttered:

"You're a cute one—a mighty cute one."

Under the circumstances I had to be. Do you blame me, considering what was at stake?"

The Squire grasped both hands of his son-in-law and replied:

"God bless her! No!"—The Saturday Evening Post.

High Society Lures Women to Drink.
Girls in Seminars Told That Total Abstinence Is Weak and Vulgar.

If there is any one feature of the drinking custom which at this time is occasion for alarm, it is the appalling increase of inebriety among women.

This statement was made by Joshua L. Bailey, president of the National Temperance Society of Friends, to a large audience of Friends, and caused much surprise.

"It was told a few days since by a pupil of one of our most fashionable young ladies' seminaries," continues Mr. Bailey, "that their principal, in counseling them to avoid extremes, declared it was just as vulgar to be a total abstainer as it was to drink to excess; that one was indication of a weak character just as much as the other. What must be expected as the results of such a situation, when these young girls enter society and become members of the fashionable set?"

DRINKING IN HIGH LIFE.
"Intemperance among fashionable women, as I have learned from some of their own class, is much more observable, even in Philadelphia, than it was some years ago. In New York a social leader, who refused to allow her name to be used because of her family connections and her personal relations to the '400,' says that the drinking evil among women of the highest circles has reached an alarming state."

"It is nothing unusual," she declares, to see in leading hotels and cafes beautiful and handsomely-dressed women of Fifth avenue absolutely pour down cocktail-tails and other mixed drinks. Nor is New York the only American city where such conditions exist. Workers of the W. C. T. U. of Chicago report finding hundreds of women drinking in the saloons at all hours of the night."

AN INCREASING VICE.
"The increased use of liquor among women is a sad but generally admitted fact in Great Britain. Dr. Haywood Smith, a noted English specialist, furnishes facts and figures to prove that British women are drifting towards inebriety. The statistics show an increasing with more rapidity among the rich and well-to-do women than among those of the lower strata of society. He adds: 'In this so-called upper class drunkenness is epidemic.'"

"I have long believed, and each year strengthens my conviction, that the drinking customs of society stands more than other impediment in the way of all moral, social, industrial and religious progress."

As They Choose.
While waiting for the train the bride and bridegroom walked slowly up and down the platform.

"I don't know what this joking and guffing may have been to you," he remarked, "but it's death to me. I never experienced such an ordeal."

"I'm perfectly dreadful," she answered, "I shall be so glad when we get away from everybody we know."

"They're actually impatient," he went on. "Why, the very natives—"

At this unpropitious moment the wheezy old stationmaster walked up to them.

"Be you going to take this train?" he asked.

"It's none of your business," retorted the bridegroom, indignantly, as he guided the bride up the platform, where they con- doled with each other over the impertinence of the natives.

Onward came the train, its vapor curling from afar. It was the last to their destination that day, an express—nearer, nearer, it came at full speed, then in a moment it whizzed past and was gone.

"Why in the thunder didn't that train stop!" yelled the bridegroom.

"Cos you sed 'twarn't none of my business. I has to signal if that train's to stop."

And as the old stationmaster softly stroked his beard there was a wicked twinkle in his eye.—From the London Sphere Moments.

Fifty Cases Smallpox.
Reported at Barbour Mills, Lyoumington County.

Over fifty cases of small pox are raging at Barbour's Mills, a lumber village in the northeastern part of Lyoumington county. Dr. Richter, a representative of the state board of health, returned yesterday from an official investigation. He has found that since the discovery of the first case several weeks ago there have been over a hundred cases, with prospects of many new ones.

Of the cases at Barbour Mills, none are quarantined and many have walked along the highway before they were entirely well.

—Subscribe for the WATCHMAN.

Forests—Their Destruction and Reproduction.

Independent of the joys of true religion, domestic peace, and "the reciprocity of kindly intercourse with friends," our highest idea of delight was a pedestrian tour in the White Mountains and in the forests of Maine. We still find pleasure when we revisit those regions to find rest from physical work, but it is tinged with melancholy. Not long ago in a little walk of seventy-five miles in New Hampshire, our eyes were pained by the glare of the sun from bare stony or sandy hills where formerly they looked with delight on noble forests of pine, maple and beech.

For eleven years we stayed a few weeks in every summer at a cottage standing in a valley one thousand five hundred and forty feet above the level of the sea. The valley was surrounded by eleven lofty mountains, some of them above four thousand feet in height. They were covered from top to bottom with virgin forest. "The brotherhood of venerable trees" had succeeded each other from the creation of the world, the place was difficult of access; but the covetous eye of the lumberman was upon it, and all through that region the forests are rapidly disappearing.

In a fine article Mr. Frank French de- scribes on the result of wood pulp-manu- facture which has become an enormous industry. "And the small spruces which escape the rip saw are ground up by the pulp mill, while those that escape the paper maker are destroyed by the chemical manufactur- er." This forest destruction already shows baneful results in the wasting of water, the cheapest motive power the world will ever know. Once it was ample to turn millions of spindles in Lowell, Fall River, and Man- chester; now it has become so variable that steam has had to be substituted.

A reaction has sprung up against the ex- tinction of the forests at the demand of mere commercial utility. The aridity of our fruitful soil, the fearful and fatal se- verity of the sun's heat, the inconstancy of the streams, the diminution of rain have combined to reinforce this call. The scar- city of water in the cities will also soon add to these reinforcements. There are hundreds of thousands of acres in the East- ern States which cannot be profitably tilled.

If the men who own them would plant them with trees, in twenty years the wood would pay them more by far than they could possibly gain as farmers. Many are finding this out, and great sections filled with young trees can be found.

The Division of Forestry in the Depart- ment of Agriculture will undertake to re- forest a large part of the Conemaugh wa- tershed at Johnstown, Pa. This is done at the request of the Johnstown Water Com- pany (which controls five thousand acres of land) that the Division of Forestry de- vise a plan by which the area can be re- covered with timber so as to prevent the too rapid rush of the rainfall. This was the cause of the frightful catastrophe in May, 1889, which swept away over ten millions of dollars of property, and cost so many lives. Yet that was only an exaggerated example of the floods that have occurred there since the forests were destroyed.

The Minnesota forestry plan has recently attracted great attention. The forestry board of the State being authorized to ac- cept lands donated to the State, with the approval of the county commissioners act- ing as a county board of forestry, the State engages to protect them from fires, ex- empt them from taxes, and reseed them. When such lands begin to yield an income, one-third is to go to the State to reimburse it for fire protection and loss of taxes (this is divided in this way: one quarter goes to the State, one half to the county and one quarter to the town,) and the re- maining two thirds to any educational eye- totem or institution in the State which the donor of this land might designate; if not, then to the common school system three quarters and the State one quarter.

At a recent convention experts on this subject presented papers representing Mich- igan and Wisconsin. Coming nearer to our present location, the forests of northern New Jersey and their relation to the water supply were thoroughly discus- sed. These forests cover 2,069,819 acres of land, of which about 80,000 are deciduous, and 1,200,000 coniferous. The forests of northern New Jersey are practically all de- ciduous, and mainly oak and chestnut. The coniferous are in the middle, and es- pecially in the southern part. Thirty-one per cent of the area of northern New Jer- sey that relates to the water supply, is in forests, notwithstanding there is a popula- tion of four hundred and fifty to the square mile; and there has been no decrease in this area since 1860. Seventy per cent of the population of the State depends upon pub- lic water. Each ten years adds half a mil- lion of people to that class. As forested areas show from five to six inches less evap- oration than deforested areas, it would fol- low that the cities of New Jersey and New York can increase their water supply better by planting their gathering grounds with forests than by extending their works at enormous expense. As this was too gen- eral a statement to settle the question, Mr. Verneuil, who brought the subject for- ward, doubted whether the plan would give the success that might be expected; but he did maintain that the quality of the water supply would be greatly improved, and the yield of the streams made more uniform by the presence of a considerable area of forest.

While the destruction of forests for busi- ness purposes has wrought terrible harm, at the convention Mr. Ayres, of the United States Geological Survey, affirmed that in Minnesota in former years ten times as much pine was destroyed by fire as was out by all the mills; and these fires when they get under way, as has been found in New Jersey, are quite unmanageable. He held (with the chief inspector of Canadian for- ests, who was also present) that prevention and the suppression of incipient fires were the only means of protection. Lumbermen generally, from fear of loss, aim to cut all the trees as soon as possible. As soon as this is done the dry tops scattered every- where invite fire.

Bad as the situation is, it is by no means as bad as it might be. There are 70,781 square miles of territory in the United States that have been dedicated to Congress for forest preservation. This is more than the whole territory of the six New England States. In the State of Washington the forests are among the most continuous in the whole land. The trees here have a thick- ness of twelve to fifteen feet, and average 250 feet in height, their trunks often shoot- ing up 100 feet without a branch. Accord- ing to the report of Mr. Gannett, Chief of the Division of Geography and Forestry, since lumbering began in the State of Washington 36,000,000 feet of lumber have been cut, but within the same period of time 40,000,000 board measure have been destroyed by fire, entailing a loss of \$30,- 000,000 to the people of that State.

To all lovers of trees the forestry exhibit of our government at the Pan-American Exposition in Buffalo will be worth the journey to that city. It will be principal- ly photographic, the display embodying

sixty framed bromide prints enlarged from photographs, with twenty colored and un- colored transparencies. These will show the various methods of lumbering, their effects on forest production, the effects of forest fires, the relation of the destruction of forests to the flow of water in streams, and the supply of water for irrigation. Chief types of trees and forests will be il- lustrated, also the value of preserving cer- tain types of protective forests for the bene- fit of large areas of agricultural lands. The mammoth big trees, the giant red firs, the white firs, and the sugar pines of Cali- fornia will be shown by colored transpar- encies six by ten feet, the largest ever made.

Fourteen colored maps of the United States will show the distribution of forest types and species and of rainfall; also the location of State experiment stations. Nineteen large slabs, four feet high and six inches thick, with the bark attach- ed and one surface polished, will show the size, quality, and character of timber trees of commercial value in the whole Ap-alachian forest region, which begins in north- ern Maine and extends down through the country west of the Ohio River almost to the southern extremity of the United States.—Christian Advocate.

How Rubber Bands Are Made.

Process Is Simple and the Business Is One of Large Proportions.

"The little elastic rubber band that is nowadays used in various businesses in place of twine seems a simple sort of thing, but there are few, if any, of the multi- tudinous articles made out of rubber for which there is such an enormous demand, especially in the United States," remarked a wholesale dealer in rubber bands in New York to the writer the other day. "In this country the number of rubber bands sold in one year amounts to about 400,000 gross, or 57,000,000 single bands. At least 60 per cent of the goods are made in New York and the rest are produced in factories located in New Jersey and New England. In New York there are a half dozen fac- tories devoted partly or exclusively to the manufacture of rubber bands.

"The process by which the bands are made is simple. The rubber in a liquid state is molded into tubing of sizes suit- able for forming the small and medium varieties of bands. When the tubing is ready for use it is put into a rapid running machine having rollers, which cut or slice the rubber into bands, the larger bands are cut out by machinery from flat sheets of rubber and joined together with the aid of heat and a pressing machine.

"Rubber bands are made in only two colors, black and brown. They range in size from one-quarter of an inch to six inches in length. The