

## Dialogue between Two Farmers on the Drouth.

Grumbler—I never did see the like.—What is the use of trying? Old Dryasdust rules the roost, and here are all of my crops just like tinder. I have about gin up. I don't see any use of praying or believing such weather, for faith, if I don't guess Providence has gone off and left us in the lurch.

Constant—You wicked man to talk so. In truth, if you are in that way of thinking, I reckon you will catch it by and-by, even dryer and hotter than it is here.—What right have you to criticise the Supreme Being, as if he did not understand himself? Do you know so much better than he, that you would be willing to take the superintendence for a while?

G.—Well, neighbor, you are a pretty sharp apologist for Providence, but I should like to know, if you can tell, what mortal good this dry time does? Why don't it rain? Why don't it ought to rain? My cabbages say they want it to rain, and have not they a right to expect it? On Saturday it clouded up, every sign was good, it lightened, thundered, and then all blew over, and here we are Monday morning as dry as ever, and only a little cooler. I am sick of it.

C.—Neighbor Grumbler, I am no learned man, but I can mention some reasons why a drouth is a good thing, notwithstanding your crops are as dry as tinder, and your cabbages will not head. Now, perhaps, one reason why you and I have got this hard time, is to wean us a little from this everlasting talk about corn, and potatoes, and wheat, and money, as if they were the only things in the world. I tell you, it is good for us to be checked off a little. We need it; I do, and from your style of talking you do too, I should judge. Do we suppose God built this great globe merely to be a potatoe hill? If we do, the sooner that range of ideas is brought to a period the better, whether by drouth, or potato rot, or whatever way he pleases. We grub and grovel so much in the earth, that it seems as if the old dame had some spirit in her, and she scowled her face in very dry wrinkles, as much as to say, "I won't serve you churls any longer, you behave so ill. I will put you on short allowance, until you come to your senses again. What are you always grumbling, and scolding, and fretting, and worrying about? You are a perfect set of ingrates!" I will give you some reason to scold once in your life. When it rains, it is so wet you are all afraid all the crops will mildew, and you cannot get your hay; and when it is dry, you are all on another string, and you vex yourselves with a thousand imaginary evils that never come." Now, for my part, I think there is where mother earth has us, neighbor Grumbler.

G.—You are a cute one, but I have not yet heard what the use of this ere drouth is, and that is just what I should like to know, about this time of day.

C.—Friend G., you know as much about it as I do. I don't pretend to know; that is my point, that we must go in these things by faith, not by sight, not by knowledge. How should I know, puny Lilliputian as I am on this great ball of earth, swinging at the rate of thirty-three miles a second round the sun, and the sun round somebody else, and somebody else round Hercules, and so on, and so on? I don't pretend to stand as God Almighty's interpreter, but I can just make a little guess, you know; that will do no mischief, anyhow. I kind of reckon this is one of nature's fallow years. Ohio wants to rest in 1854. It has had a pretty hard time, raising wheat, and corn, and grass, and peaches, and trees, and cattle, and has got rather run down. Her constitution is a very fine buckeye one—but then, there is such a thing as being used up. So with Pennsylvania, so with New York, and most of the States. The powers of nature, the goddesses of stream, and soil, and oak trees, and wheat fields say to themselves—Well, it is of no use, these persevering Yankees will bleed us to death; we may as well hold on a little, as to be all run out so soon.

Now this year we will stop their proceedings, and let the salts and alkalis and phosphates have time to get up their steam again, and by another year they can have a good crop. But if we let them spin this rig, and have no check, they will run Ohio and Indiana, &c., as low as China, where there is not strength enough left in the earth to raise a stalwart two legged man, but only a sort of copper counterfeited humanity, in which the acoustic nerve has got so low that they think gongs are music! There it is, this is the fallow year. Providence says to the fields, this is the jubilee year, you may rest, you need not break your backs carrying stacks of corn and wheat and shouldering big loads of hay and great oxen. And Providence says to the skies, you need not cry yourselves to death this year, but hold up a while, and have a good laughing time with the sun and moon and stars, without any fit of sulks. And Providence says, to the brooks and rivers, do not always be tumbling down and breaking your necks, just be quiet for a season, and take things easy, and not be in such an everlasting hurry and worry with running down hill, instead of walking, as the genteel gait is.

And Providence says to the little peaches, and to small potatoes, and the wizened up plums and pears, now this year you may do as you please, you need not crack your cheeks open for that tyrant man, if you don't want to, for what will you get for it if you do, but be crunched between his jaws and swallowed up. No, just be cool and dry, and grow just as much as you please, and just as little, and just as slow, and let him know that all his scolding and fretting will not make a bit of difference with your

conduct. Let every little fairy in the melon patches, and the orchards, and the parterres of flowers declare its independence this summer of its cruel lord, and say, "let me alone this year." Thus good farmers let a part of their farms lie fallow some seasons; and good Providence in the same way takes things into its wise control, and when man would push ahead too fast and too far, it says, "let the United States lie fallow this summer, and convalesce."

G.—Well, there is something in what you have said; a pretty bright idea, that's a fact. But I don't see yet as it does mankind much good to have drouths, for they are as cross about it as if they thought they had been personally abused, and Providence had insulted them by not making the ears of the corn longer, and the pears and apples bigger cheeked. Come, neighbor C., you must confess that this year has not been favorable to gratitude or contentment, but it has been a succession of hope, hope, scold, scold, and I wish it would rain, and why don't it rain, and I do not believe it ever will rain.

C.—Then it is all the worse for mankind, is all I have to say. If they will not take the hint, such a gentle one, as they have got this year, that they are men and not gods in the world, perhaps they will get one next year which they will understand! For Providence has in its great bundle, other rods which will tingle even worse. But then the farmers will learn by these great drouths many lessons. They will, like naughty boys at school, cry and scold and pout awhile, but they will study their book better in the end. They will acquire the European habit of irrigation, and practice better farming and gardening. They will feel their dependence more on a higher power than their own, and not abuse Nature, as if they had a right to meet her with a pistol and say, stand and deliver, like highwaymen, instead of being suppliants for her favors, and grateful when she gives them. Besides, neighbor Grumbler, the joke of the whole thing is, that with all our own complaints, we have enough, and to spare! There you have at this moment, wheat to sell, if you would sell it.

There are millions upon millions of bushels of wheat and corn in Ohio this blessed year, and if we farmers do not hoard it up to get a higher price, and thus grind the faces of the poor, and stint the little children of their bread and butter, all will have enough, notwithstanding the drouth of 1854. So let us go home and get our grain, and sell it at an honest price, and not try to cheat God's children of the grain all the fall and winter, after murmuring all the spring and summer because God's Providence did not make our crop fifty bushels to the acre, instead of fifteen or twenty-five. Let us keep it too out of the hands of speculators, and let war prices go to General Krestchatsky, or some other crack jaw Russians, where they belong; and last, and not least, let us not hive up all the small silver change, so that there will be none in market.

[Exeunt farmer Grumbler with an accelerated pace, and farmer Constant with his usual heavy but honest gait].—Cincinnati Columbian.

[From the New York Evening Post.]

## AN HOUR AT THE ASSAY OFFICE.

What becomes of the gold? Doubtless this is the question that some readers are often puzzled to answer. They hear of the safe arrival of large quantities at this port; but after that they know nothing of it, except when they are reminded of its presence by the sight of some bright, newly stamped coins, which, however, has a proverbial facility for taking to itself wings, before the possessor has had time to reflect whence it comes or whither it goes.

If our inquisitive readers will take a walk with us to the granite building adjoining the Custom-house, in Wall Street, and now occupied as the United States Assay Office, they will be able to satisfy their curiosity. Here the value of the gold brought into our city is determined, and it is prepared for coinage, or cast in bars for transshipment. The Assay Office proper, where the melting, refining, parting, and other operations upon the gold are performed, is in the rear of the building fronting on Wall Street. In front are the sub-treasurer's office and weighing-room, and the private rooms of various incumbents of government offices.

Let us first visit the weighing room. Here all the deposits, whether in bars or dust (generally, however, in dust,) are first brought, and here their original weight is ascertained. The dust is not, as might be inferred from the name, a fine, bright, yellow powder, but looks rather like dingy, brass colored granite, broken by a hammer into the fineness of ordinary Turkish Island salt. After weighing, the deposit is carried into the treasurer's vault, in the Assay Office proper, whence it is taken and melted.

The melting is done in crucibles containing two or three gallons, over a coal furnace heated to an intensity that would satisfy Nebuchadnezzar himself. The poor, swarthy melter, who superintends with a long-handled ladle, say ten feet in length, even at that distance turns to a most copperish hue of complexion, and has to abandon the work in a few hours for the rest of the day. In an hour or two the contents of the crucible can be dipped out, and the molten mass poured into molds, by which it is shaped into bars of about three hundred ounces each.

The gold is then returned to the vault of the melter and refiner, a cell some twelve feet square, with two iron doors, secured by four locks, and with granite walls, put together with cannon balls inserted between the stones in such a manner as to defy the most ingenious and persevering burglar. Four men are appointed to

sentinel this depository at night, and a similar provision is made for the treasurer's vault, where the gold that has gone through all the processes which are appointed for it is placed.

On entering this vault, we were not at first impressed with the appearance of what was there exhibited. But how much it expanded one's estimate of what he saw, when informed that that diminutive pile of golden bricks was worth half a million. There it lay, as Hood says:

Gold! Gold! Gold! Gold!  
Bright and yellow, hard and cold;  
Molten, graven, hammered, and rolled;  
Heavy to get and light to hold;  
Hoarded, bartered, bought and sold;  
Stolen, borrowed, squandered, doled;  
Spurned by the young, but hugged by the old  
To the very verge of the churchyard mold:  
Price of many a crime untold!  
Gold! Gold! Gold! Gold!  
Good or bad a thousand fold!

But to return to business. The gold is next to be assayed—that is; to have its value and fineness ascertained by a delicate chemical process, which is performed in this wise: on each deposit—which still retains with its gold the various impurities with which it first came out of the mine—two bars are selected at random, and a small shaving of a prescribed weight is cut from each. A pair of scales is employed, so delicate that the thousandth part of a grain will turn it, to weigh them separately. They are then wrapped round in a thin coating of lead, and having been put into little cups, called cupels, made of phosphate of lime—or, in plain English, of burnt bone—are subjected to an intense heat. At once the lead melts, and uniting with the copper and other foreign ingredients of the gold, assists the oxidizing, and with them is absorbed into the porous substance of the cup, leaving no sign, except a dark stain, of its presence.

But the gold still shines out in the cup, inclosed by a trifling wash of silver, looking like a small button. To separate these it is placed on an anvil and flattened with a hammer to such a thinness as may make it permeable to the nitric acid in which it must now be immersed. A small long-necked bottle, called a matrass, contains this fluid, into which he drops the button. The bottle is heated over a furnace, and the acid completely absorbs the remaining alloy, leaving the gold perfectly pure, with only a slight black covering of oxidized alloy, which is removed by annealing. The adhering acids are then washed off, and all he has to do is to re-weigh the two shavings of gold, and to ascertain how much they have lost by the chemical changes they have been put through. He thus discovers what proportion of pure metal is contained in a given part of a deposit, and from this judges of the fineness and value of the deposit itself. The owner then can receive its value in pure bars of other gold, and go on his way, resigning all claim to the original quantity which he brought to the office. The responsibility of the melter and refiner now begins. His business is merely that of his predecessor, only on a less delicate and much larger scale, i. e., to free the entire deposit from alloy we see the workmen in the granulating-room sweltering over seven large furnaces along the sides, we notice that the cement floor of the apartment is covered, about two inches deep, with iron-grating, through which small particles of gold or silver have been carelessly or unavoidably dropped. It will not do to lose them, and so, at certain periods, the floor is carefully swept, and the sweepings, dirt and all, with the men's aprons, the discarded crucibles, ladles, etc., are collected, burnt, ground, and otherwise transformed, till a very considerable revenue of precious metal is obtained therefrom. What it amounts to in the Assay Office has not been definitely stated, but we were told that at the Mint in Philadelphia it came to the handsome figure of \$50,000 a year.

The melting is now to be attended to. One hundred pounds of silver to fifty of gold is placed in each crucible, the rule being two of the former to one of the latter. After an hour and a quarter the two are rendered fluid, and the mixed metal is poured into a large copper vessel containing cold water, to which a rotatory motion is given. This rotatory motion has the effect of preventing the solidification in a mass of the metal, causing it to harden and sink to the bottom in the form of flakes or grains. Hence it is called the process of granulation, and the mixed metal from the excess of silver in its composition is called granulated silver.

It is certainly beautifully white, looking like the oxidized silver that we see among the ornaments of a jeweller's window, as indeed it is the same thing. Not only has it been melted itself, but it has facilitated the melting of the other alloys of the gold, and after drawing them out and mingling with them, has completely incrustated the pure yellow metal that is concealed in it.

The metals are separated in the parting-room, where the granulated silver is carried. We find four rows of eight porcelain pots, each with a capacity of from twenty to twenty-four gallons. They are placed in troughs of boiling salt water, and into each is turned one hundred and fifty pounds of the granulated or mixed metal, over which is poured as many pounds of nitric acid. This acid, uniting with the silver, forms a solution which is called nitrate of silver, and the effect of such an alliance is to separate and sink the pure gold to the bottom of the jar. The nitrate of silver is then drawn off with a gold syphon—gold being the only metal which can withstand its action—and another charge of nitric acid is applied to complete the work.

After the second charge has been in the same manner removed, we see at the bottom of the pot a black unpromising sediment remaining. But

the spectator must not be discouraged. The sediment is pure yellow gold, as will be shown by washing it a few times in warm water, so as free it from the acid that still clings to its exterior. It now appears thoroughly pulverized and fairly entitled to the name of gold dust.

The next operation is to solidify it by subjecting it to a pressure of two hundred tons from a hydrostatic press, when it comes out in the form of cheeses about a foot in diameter, with a thickness of three inches. Then put it on a furnace heated red hot, so as to expel the last drop of water from it, and again melt it in a crucible, from which it must also again be molded into bars of fine gold, varying, according to their size and fineness, from \$6,000 to \$8,000 in value.

These are once more assayed at the hands of the assayer, by the process before explained, stamped to indicate their number, fineness, and weight, and committed to the vault of the treasurer, there to await his disposal. It is only such bars that are received at the banks, who are unwilling to accept those which have been assayed without the authority of the government. Their conversion into money must be done at the Mint in Philadelphia.

Our merchants, also, for several reasons, prefer the gold bars to coin in making their foreign payments. In the first place, they are cheaper, as they are compelled to pay fifty cents on a hundred dollars for money, while the charge for bullion of the same value, in bars, is but six cents. They are, moreover, obviously more acceptable to merchants abroad than our national coin, except in those countries where coin is wanted to supply emigrants bound for our shores.

The fineness of the bars manufactured at the Assay Office, as shown by its operations on the last deposit of California gold, was 995 thousandths, a success not hitherto equaled by any other similar establishment. When first deposited with the assayer, it ranges, on an average, from 860 to 885 thousandths of pure metal. According to the requirements of Congress, our national coin must contain ten per cent. of alloy—i. e., one hundred parts out of every thousand. Fine bars, by the same rule, are required to consist of 889 thousandths of pure gold, with a permission to refine as much further as may be found possible.

But to complete our account, we should give a report of the fate of the silver, drawn off in solution with nitric acid from the porcelain pots which we have mentioned. All we have to say is, that it is emptied into an enormous vat, nearly filled with a solution of common salt. The silver is thus precipitated, that is, sunk in a solid form to the bottom, becoming what is called chloride of silver. It is then freed from the acids adhering to it, in the same manner as we have mentioned in the case of gold; reduced to metallic powder by an immersion into vats containing sulphuric acid and zinc, washed, pressed, dried, and cheested in precisely the same way as gold, and is thus ready to be re-melted and re-employed for the purification of the more precious metal.

Such is a brief account of the processes used by the new Assay Office in performing the duties assigned by the government to it. Every one knows how important and necessary it is to the interests of business in an immense commercial city like New York. It has been too recently established to enable us to present any statistics showing any thing more than a probable estimate of the extent of its operation for a year. A single arrival from California, on an average, brings it a deposit of nearly a million and a quarter in value, and such arrivals occur weekly. This would give a monthly accumulation of five millions. The machinery of the office is enough for the annual assay of fifty millions. Fifty men are now employed in carrying on its operations.

**THE WONDERFUL PLANT.**—Mary and Kate, two poor children who resided near a large village, were going to sell some vegetables. Each carried a heavy basket full. Kate murmured and sighed at every step, while Mary joked and laughed as she plodded steadily forward.

"How can you laugh so?" your basket is full as heavy as mine, and I am sure you are no stronger than I," said Kate.

"Why," replied Mary, "you see that I took care to put on the very top of my basket a certain little plant, and I can scarcely feel any weight at all. You should have done the same."

"Oh," cried Kate, "that must be a wonderful plant indeed! I would gladly lighten my load with it; do tell me what it is."

Mary answered: "The precious plant which lightens every burden is called patience."

Have patience, my young friends, and you will find all your tasks lightened, and your lessons easier.

"I WOULD RATHER BE SCOLDED THAN TELL A LIE."—This was a noble reply which Augustus made, and one which we wish all boys would remember, when any one asks them to tell a falsehood. One day, when Augustus was sent to the grocery by his mother to get some milk in a pitcher, Robert wanted to go in his stead; and when they got into the street, he tried to force the pitcher out of his brother's hand. Augustus held the pitcher fast, till at last it was broken to pieces in the scuffle, by falling on the ground. Then Augustus began to cry bitterly. A person who was in the street, and saw how it happened, came up and told him to say, when he got home, that the woman who sold the milk had broken the pitcher.

Augustus wiped his eyes, and looking steadfastly in that person's face, said, "That would be telling a lie; I will tell the truth, then my mother will not scold me; but if she should, I would rather be scolded than tell a lie."—[Life Illustr.