

ver disclosed during our stay; nor did we trouble ourselves at any noises we might hear in the middle of a moonlight night, although they were very different from those with which we were first greeted. The mysterious visits only seemed to replenish our stock, and our prudence prevented more prying eyes from discovering the use made of the deserted mansion by a set of smugglers and contraband travellers created by the anarchy of the times and looseness of the government at all times: who, in this case, did a deed of great charity in cherishing with everything in the way of stores, two most discreet lieutenants.

"I began by saying," added my uncle, after the "Ohs!" of the disappointed ghost-lovers had subsided, "that I would tell you a story about spirits; and, had you seen such as we did, you would have believed in them ever after."

THE SLEIGH RIDE.

BY JOHN NEAL.

As I was going past John Caster's tavern the other day, I heard a terrible noise in the bar-room, and thinks I, I'll just put my head in, and see what's the matter. "Whoorah!" roared a heap of fellows, "here's Johnny Beedle, he'll go, and that makes ten;" and they haul'd me in among 'em. "What's the occasion?" says I. "A sleigh ride over to Shaw's, (every body goes to Shaw's that goes a sleigh riding,) with gals, fiddle, and frolic!" "Whoorah!" says I. "I motion," says Dr. Partridge, "that every gentleman go right straight now, and get his sleigh and his lady, and meet at Hank's corner;" and with another whoorah, we burst out of doors and scattered.

I ran full speed to the widow Bean's. Her daughter Patty is the handsomest girl in Casco Bay. I had given her some pretty broad hints, and only waited for a good chance to pop the question. And out it shall come, this very night, says I.

I bounced into the widow Bean's out of breath, and was near catching Patty in the suds. She had just done washing, and was wringing out, standing in the midst of numerous tubs, mops and kettles. She was struck all of a heap at the sight of her spark, and would have blushed nicely, I guess, if she hadn't been as red as she could be already. "A word in your ear Patty," says I, givin' her a wink, and stepping into a corner, I told her what was brewing. "I'll run and borrow the deacon's sleigh, and come back right away," "O, you needn't be in such a tearing hurry," says she, "for I've got to shift from top to toe. You see what a pickle I'm in." "Ah, Patty," says I, "beauty when unadorned's adorned the —" "Well, I vow," says Patty, says she. And off I shot, for how was I to follow up such a bold speech; but I couldn't help sniggering all the way to the deacon's to think how swimmingly matters were going on. I was so full of this, that I entirely forgot to make up a story to fob off upon the deacon, till I got almost to the door; for the deacon is a sworn enemy to all frolicking, and so is his mare. "I'll tell him I want to carry a grist to mill. But that will be found out. No matter, so it is after election, as the politicians say."

The deacon gave a mortal squint at my face, when I did my errand, but I was safe behind a shirt collar. He then fell chewing his cud and considering.—"Mother's clean out," says I, "both rye and injun." The deacon spit. "Well, neighbour, if you are afeared to trust a feller, there's two shillings beforehand." "Poh, poh, John," says he, walking up and pocketing the monee, "not trust you? hear that. Now, Joshua, tackle up Sucky. You'll drive the critter slow, John; and now I think on't, you may bring my grist, that is now at the mill—and look sharp to the miller, John, when he strokes the toll measure." It was too late to stick at lies now. So I promised every thing, jumped into the sleigh, and steered to the widow's, with flying colors. It is the height of gentility, you must know, for a lady to make her beau wait as long as possible on such an occasion. I sat over a heap of warm ashes in the widow Bean's parlor, listening to Patty stamping about in her stocking feet, in the chamber over head, for one good hour. Then I stood up to the looking-glass and frizzled up my hair, changed my spirt-pin to a new place, thought over some speeches to make under the buffalo skin, and finally laid a plot to lug in the awful question in a sort of slantindickular fashion.

At last Patty appeared in all her glory; I was just crooking my elbow to lead her out, when in came Mrs. Bean.

"Where are you going to, Patty?"

"Over to Shaw's, a sleighing."

"What, and leave your cousin Dolly all alone, to suck her fingers? A pretty how d'ye do that, after coming all the way from Saco to see you."

Here was a knock-down argument. All my plans of courting and comfort melted down and ran off in a moment. I saw directly that the widow was resolved to push big Dolly Fisher into my sleigh, whether or no; and there was no remedy, for the widow Bean is a stump that is neither to be got round nor moved out of the way. I said something about the small size of the sleigh, but it wouldn't do—she shut my mouth instantly.

"Let me alone," says she—"I went a sleighing afore you was born, youngster. If I don't know how to pack a sleigh, who does? Patty Bean, stow yourself away here, and shrink yourself up small. If there ain't room, we must make room, as the fellows used to say. Noy, Dolly, hoist yourself in there!"

She tumbled her into the sleigh like a shot from a shovel, or a cart load of pumpkins into a gondola. It was chuck full of her. "O, she's a whopper, I tell you."

"Why, Johnny Beedle," say Mrs. Bean, "in my day, they used to pack us layer on layer."

At this hint, I sneaked round to Patty, to begin the second layer on her lap. But the widow was wide awake. She clenched me by the collar, and patting upon Dolly's knees—"Here's the driver's seat," says she. "Plant your feet flat and firm, neice—jump up, Johnny, and now, away with her, my lad."

By this time I had got so ravin' mad that I could hold in no longer. I fell foul of the old mare, and if I didn't give it to her about right, then there's none o' me, that's all. The Deacon counted the welts on her side a week afterwards, when he called on me for a reckoning, which was made with chalk upon the upper flap of his every day hat. Sukey, not understanding such jokes, took the bit in her teeth, and shot off, right on end, like a streak of true Connecticut lightning. Jemima! how we skimmed over it. And the houses, and barns, and the fences, and pig-styes, flew by us like clouds by the moon. "Yonder is Hank's corner—Whoorah!" and "Whoorah!" answered all the ladies and gentlemen with one voice. Sukey, scared with the noise, turned the corner with a flirt, and the sleigh was bottom upwards in a—! "Whoa, there, whoa!" The first thing that I knew, I was in the bottom of a snow bank, jammed down under half a ton of Dolly Fisher! I thought I never should see daylight again, and when they hauled me out, I left a print in the snow very much like a cocked up hat knocked into the middle of next week, as the sailors say.

Howsoever, no bones were broken. We shook our feathers and crept into our nest again, laughing as loud as the best of them. The sleighs were now formed into a string, the fiddler following, and away we started on the road to Shaw's—bells jingling, fiddles sounding, and every body hallooing and screaming for joy.

Peter Shaw heard the racket two miles off; for he was always on the look out of a moon shiny night. He fell to kicking up a dust in the best room to put it to rights, and we arrived, the floor was swept, the best japan candlestick paraded, the fire place filled with green wood, and little Ben was anchored close under the jamb, to tug at the broken winded bellows. No fire appeared, but there was strong symptoms of it, for there was no lack of smoke; and part of it missing the way up chimney, strayed about the room, which gave me a chance to hit off another compliment upon Patty's beauty, as being the cause of drawing the smoke.

Every body laughed at the idea.—But there was no time for chat. As soon as we had taken a swig at the hot stuff all around, we sat the fiddler down in the jamb, took the floor, and went to work, might and main, the fiddler keeping time with the bellowses. Not to be prolix, we kept it up, frolicking and drinking hot stuff till midnight, and while it lasted, the fun was real ginniwine, I tell ye. But as I cast a sheep's eye at Patty, I took a notion that she and Siah Golding were rather thick, considerin'. Thinks I, she wants to make jealous, to spur me on; so seeing them in close confab, as I was cantering down outside, I poked my head between them and cried *boo!* But the cat was soon out of the bag. We paid the reckoning—four and six-pence apiece. Think of that. Every body grumbled, but Peter Shaw didn't care. Then followed the crowding of sleighs, taking in the ladies at the door. Such a hubbub and confusion! But when my turn come, lo and behold! Patty Bean was missing, and so was Si Golding!

Here is the end of my story; and whoever wants to know the particulars that happened on the ride home, must ask Dolly Fisher. The Deacon will tell you what a pickle Sukey came home in, and how much I paid 'for the whistle.' Finally, whoever went to your meeting-house the next Sunday morning, knows very well how Patty Bean and Josiah Golding are to square accounts.

SCIENCE.

THE SCIENCE OF GUN COTTON.

This preparation, which has attracted so much attention in the civilized world since its discovery, is prepared by immersing the raw material in strong nitric acid, and after it is completely saturated, washed in pure water, until every trace of acidity is removed, and then perfectly dried; it then possesses powerfully explosive properties, far surpassing common gunpowder in its effects, and highly dangerous, since some preparation of it have been found to explode at a degree of heat not exceeding that of boiling water; therefore it cannot supercede gunpowder, since a gun, after few discharges, would become heated to such a degree as to explode the cotton, and thus produce most disastrous consequences.*

No satisfactory theory has as yet been found to explain this curious transformation of cotton into a highly dangerous preparation. Some have supposed that the nitric acid carbonized the cotton, and thus rendered its particles of carbon free to unite with the oxygen of the nitric acid, and have supposed that in this manner it resembles and actually constitutes gunpowder, and that the nitric acid added to the cotton gives off oxygen to oxidate the carbon of the cotton, in the same manner that saltpetre in gunpowder gives off its oxygen to oxi-

date its carbon and sulphur; but such a theory has a great many weighty objections.

1st, Nitric Acid in a free state cannot exist in the prepared cotton, since it has been ascertained that when this prepared cotton is immersed, and allowed to stand in water for many days, the cotton is but slightly injured. Now it is evident that if nitric acid did exist in a free state, it must have combined with the water, by reason of its intense affinity, and thus the cotton would lose all of its explosive properties.

2d, No carbonization takes place, for the cotton if carbonized would appear black.

3d, Nitric Acid would not give off its oxygen until it was united with some base.

Therefore this Theory totally fails to give a satisfactory explanation of its operations.

I now propose to give a Theory of its formation, which will fully and satisfactorily explain all its operations under any circumstances. It is well known to the agriculturist as well as to the chemist, that nearly all vegetables require for their support certain salts or alkaline bases, such as lime, potash, soda, &c., and that they absorb them into their structure by their roots, which may be proved by burning the plants, for the ashes which remain consist principally of the bases above mentioned. Now this is the same case with cotton; it extracts from the soil these bases, which are received into the structure of the plant, and assimilated; consequently, then, the fibres of the cotton contain in their structure potash, lime, or soda, and in a state of exceedingly minute division, finer than can be procured by any operation of art. Therefore, when cotton is immersed in the nitric acid, it unites with these bases, which may be present in the fibres of the cotton, potash, lime, or soda, to form nitrate of potash (saltpetre,) of lime, or of soda, and which remain in the cells of the fibres of the cotton. Nitrate of Lime, or soda, will make gunpowder full as well as nitrate of potash, (saltpetre,) only it will damage by age.

Carbon, sulphur and saltpetre constitute common gunpowder. Now, instead of this, we have in the preparation of cotton, carbon, hydrogen and saltpetre, in a much finer state of division than in common gunpowder; and therefore the only real difference between gun cotton and gunpowder is in the substitution of hydrogen for sulphur, and in the finer division of its particles. By this theory it is easily perceived how explosive preparations are made from other vegetables, as saw dust, &c.; the nitric acid uniting and saturating the alkalies present in the wood, in the same manner precisely as cotton. Consequently, to furnish a superior article of gun cotton, the cotton must be raised upon land containing plenty of these bases.

* Our correspondent's opinion is probably predicated upon the *amateur* article made from the flying recipes of the Press, but it is claimed for the genuine Schonbein preparation, that it is as innocuous as the best of gunpowder.

MATHEMATICAL ASTRONOMY.

Le Verrier, who has been appointed Professor of Mathematical Astronomy, took for his opening address the pre-eminence of mathematical astronomy over that of simple observation. The following sentence gives a tolerably fair idea of the lecturer's views of the subject: "When," said he, "armed with your instruments you observe the heavens, you advance with difficulty towards the mountain, and at last you climb it slowly; whereas by the omnipotence of mathematical analysis, you tell the mountain to come to you, and it comes and bends with humility at your feet."

THE MOON.—Sir John Herschell, at a late meeting of the British Association for the advancement of Science, expressed the opinion that the temperature of the moon's climate must be very high, "far above that of boiling water." And the reason given is, that its surface is exposed for fourteen days at a time to the unmitigated and continual heat of the sun. At the full, and for a few days afterward, the moon must certainly be the reflector of some heat to the earth. Sir John has no doubt of the fact, but as it has the character of culinary rather than solar heat, that is to say "it emanates from a body below the temperature of ignition," it will be arrested by the upper strata of earth's atmosphere and thus absorbed. There its only effect will be to convert visible clouds into transparent vapor. He asserted that the phenomena of the rapid dissipation of clouds in moderate weather, soon after the appearance of the full moon, could easily be accounted for on this principle, and that his own observations confirmed the theory.

AN ENEMY'S COURTESY.—When the Crusaders, under King Richard of England, defeated the Saracens, the Sultan, seeing his troops fly, asked what was the number of the Christians who were making all this slaughter? He was told that it was only King Richard and his men, and that they were all on foot. "Then," said the sultan, "God forbid that such a noble fellow as King Richard should march on foot," and sent him a noble charger. The messenger took it, and said, "Sire, the Sultan sends you this charger, that you may not be on foot." The king was as cunning as his enemy, and ordered one of his squires to mount the horse in order to try him. The squire obeyed; but the animal proved fiery; and the squire being unable to hold him in, he set off at full speed