

Cheap Buildings--Balloon Frames--How to Erect Them.

At the last meeting of the Farmer's Club, in New York City, Jan'y 16th.

Mr Robinson said:—In answer to many inquiries upon this subject, I will start a balloon from the foundation, and finish it to the roof.

I would saw all my timber for a frame house, or ordinary frame out-building, of the following dimensions; Two inches by eight; two by four; two by one.

I have, however, built them, when I lived on the Great Prairie of Indiana, many miles from saw mills, nearly all of split and hewed stuff, making use of rails or round poles, reduced to straight lines and even thickness on two sides, for studs and rafters. But sawed stuff is much the easiest, though in a timber country the other is far the cheapest.

First, level your foundation, and lay down two of the two-by-eight pieces, flatwise, for side walls. Upon these set the floor sleepers, on edge, 32 inches apart. Fasten one at each end, and, perhaps, one or two in the middle, if the building is large, with a wooden pin. These end-sleepers, are the end sills.

Now lay the floor, unless you design to have one that would be likely to be injured by the weather before you get the roof on.

It is a great saving, though, of labor, to begin at the bottom of a house and build up.

In laying the floor first, you have no studs to cut and fit around, and can let your boards run out over the ends, just as it happens, and afterwards saw them off smooth by the sill.

Now set up a corner-post, which is nothing but one of the two-by-four studs, fastening the bottom by four nails; make it plum, and stay it each way. Set another at the other corner, and then mark off your door and window places, and set up the side studs and put in the frames. Fill up with studs between, 16 inches apart, supporting the top by a line or strip of board from corner to corner, or stayed studs between.

Now cover that side with rough sheeting boards, unless you intend to side up with clapboards on the studs, which I never would do except for a small, common building.

Make no calculation about the top of your studs; wait till you get up that high. You may use them of any length, with broken or stub shot ends, no matter.

When you have got this side boarded as high as you can reach, proceed to set up another.—In the meantime, other workmen can be lathing the first side.

When you have got the sides all up, fix upon the height of your upper floor, and strike a line upon the studs for the under side of the joist. Cut out a joist four inches wide, half an inch deep, and nail on firmly one of the inch strips. Upon these strips rest the chamber floor joist. Cut out a joist one inch deep in the lower edge, and lock it on the strip, and nail each joist to each stud.

Now lay this floor, and go on to build the upper story, as you did the lower one; splicing on and lengthening out studs whenever needed, until you get high enough for the plate. Splice studs or joists by simply butting the ends together, and nailing strips on each side. Strike a line and saw off the top of the studs even upon each side—not the ends—and nail on one of the inch strips. That is the plate. Cut the ends of the upper joist the level of the pitch of the roof, and nail them fast to the plate, placing the end ones inside the studs, which you will let run up promiscuously, to be cut off by the rafter.

Now lay the garret floor by all means before you put on the roof, and you will find that you have saved fifty per cent of hard labor. The rafters, if supported so as not to be over ten feet long, will be strong enough of the 2-by-4 stuff. Bevel the ends and nail fast to the joist. Then there is no strain upon the sides by the weight of the roof, which may be covered with shingles or other materials—the cheapest being composition or cement roofs. To make one of this kind take soft, spongy, thick paper, and tack it upon the boards in courses like shingles. Commence at the top with hot tar and saturate, the paper, upon which sift evenly fine gravel, pressing it in while hot—that is, while tar and gravel are both hot. One coat will make a tight roof—two coats will make it more durable.

Put up your partitions of stuff 1-by-4, unless where you want to support the upper joist—then use stuff 2-by-4, with strips nailed on top, for the joist to rest upon, fastening all together by nails, wherever timbers touch.

Thus you will have a frame without a tenon or mortice, or brace, and yet it is far cheaper, and incalculably stronger when finished than though it was composed of timber ten inches square, with a thousand auger holes and a hundred days' work with the chisel and adze, making holes and pins to fill them.

To lay out and frame a building so that all its parts will come together, requires the skill of a master mechanic, and a host of men and a deal of hard work to lift the great sticks of timber into position.

To erect a balloon-building requires about as much mechanical skill as it does to build a board fence. Any farmer who is handy with the saw, iron square and hammer, with one of his boys or a common laborer to assist him, can go to work and put up a frame for an out-building, and finish it off with his own labor, just as well as to hire a carpenter to score and hew great oak sticks and fill them full of mortices, all by the science of the 'square rule.'

It is a waste of labor that we should all lend our aid to put a stop to. Besides, it will enable many a farmer to improve his place with new buildings, who, though he has long needed them,

has shuddered at the thought of cutting down half of the best trees in his wood lot, and then giving half a year's work to hauling it home and paying for what I do know is the wholly useless labor of framing.

If it had not been for the knowledge of balloon-frames, Chicago and San Francisco could never have risen, as they did, from little villages to great cities in a single year. It is not alone city buildings which are supported by one another, that may be thus erected, but those upon the open prairie, where the wind has a sweep from Mackinaw to the Mississippi, for there they are built, and stand as firm as any of the old frames of New England, with posts and beams sixteen inches square.—[Brother Jonathan.]

The Hyena.

ITS COWARDICE, TERRIBLE POWER OF ITS JAWS.

There are several species of hyenas, all of them possessing certain peculiarities which distinguish them at once from all other animals, the principal marks being the length of their fore-legs, and the enormous power of their jaws. Their fore-legs are so much longer than their hinder, that the animal moves with a kind of shambling shuffle, that gives it a sneaking appearance, too well borne out by its character.—The expression of its countenance is that of untamable, ill-natured ferocity, and its voice resembles an exulting demoniacal laugh. Altogether, it is about as unprepossessing an animal as can well be imagined. Its habits are such as to deepen the unfavorable impression which its personal appearance never fails to create, for it mostly derives its food from dead bodies of men and animals, for the one robbing the cemeteries, for the other scouring the streets, if it lives near mankind, or following the track of the lion and other beasts, if it lives in the desert, and disputing the prey with them. If the body of any departed friend is intended to rest in peace, the survivors are forced to fence in and protect the grave by a strong fortress of thorns and prickly shrubs, as the hyenas very soon scrape away the earth of a newly made grave.

The jaws of these creatures are more powerful than those of any other animal, and to give them this power, the top of the skull is surmounted with an enormous bony ridge, serving for the support of the immense muscles that move the jaws. The lions and tigers possess tolerably powerful jaws, and have, accordingly, a large ridge on their head; but they sink into insignificance when placed beside the skull of a hyena. The object of this enormous power of jaw is evident. The hyenas are intended as scavengers, to remove from the face of the earth those substances which would otherwise putrify and pollute the air. Among these substances may be placed the dead carcasses of large animals, which, in the country where the hyena lives, are frequently seen thrown down unheeded, and, if the hyenas and vultures did not remove them, would be suffered to remain there until they had wasted away by putrefaction. It is, therefore, with a view to this end, that the jaws of the hyena have been made so powerful. When they discover a dead animal, it soon vanishes, for the hyenas leave nothing but the horns, hoofs and skull, even the very bones being devoured. Between the teeth of a hyena the leg bone of an ox is broken up as easily as a schoolboy cracks a nut; and not only does the animal break up the bones for the sake of the marrow, but devours bones and all.

Dr. Buckland, who made several experiments on the strength of hyena's jaws, compared them to a crushing mill, or those enormous shears used in foundries to cut up rolls of iron and copper. These experiments were made in order to clear up a doubt respecting some broken bones found in Kirkdale Cave, Scotland. Dr. Buckland asserted that they were the bones of certain animals cracked by the hyenas, whose skeletons lay near. The power of jaw required for such a feat appeared so improbable that Dr. Buckland commenced a series of experiments, with a view to ascertaining the point. He therefore, presented the leg bones of oxen to a living hyena, who instantly broke them between his jaws, and began to swallow the smaller pieces. Dr. Buckland then took away the crushed ends of the bones and compared them with those found in Kirkdale Cave. As he had imagined, they corresponded so closely that there was no longer a doubt on the subject.

The neck of these animals is also exceedingly strong, and when the skin is taken off looks like a fleshy cable, and with such force are these muscles endowed that, according to Cuvier, the joints of the vertebrae sometimes become ankylosed, or rendered immovable by the strain of the muscles. The neck, therefore, becomes quite stiff, and leads many people to imagine that the neck of the hyena has only one joint.—The hyenas are now confined to Africa and part of Asia.

Although the hyena has been called an untamable animal, there have been several tame hyenas known which have domesticated themselves like dogs, and appeared quite as much attached to their masters.

The hyena is a shockingly cowardly animal, and never attacks those creatures from whom it fears any resistance, but directs its efforts toward carrying off their young. Curiously enough it is much more successful in the chase of healthy animals than those which are weakened by disease, for this reason: the hyena has no notion of opposing any animal that boldly resists him; but if he can put to flight any creature, he pursues it with all the courage imaginable. When, therefore, he is about to

attack any living animal, he first sets up a tremendous howl, and gnashes his teeth. At this sound, those animals who are in health trust to their speed, and scamper off, while those who are deprived of their speed by illness, turn round and boldly face him, whereat he prudently leaves them, and chases the fugitives. So, fearing man, but having a liking for human flesh, the hyena comes silently by night, and steals away sleeping children from the very arms of their mothers, and that so quietly that the unfortunate parent is often unconscious of her loss until aroused by the cries of her infant as the nocturnal depredator is carrying it off.

I have before mentioned the enormous strength of the hyena's neck, and will now give an instance where the creature exhibited his powers of neck in a very singular manner.—The flooring of a hyena's den wanted repairing. The carpenter had been working at it for some time, and completed his work by nailing down a stout oak plank about seven feet in length.—The plank was fastened down by a dozen or so nails of the description called 'tenpenny,' being rather longer than a man's middle finger, and proportionately stout. When the plank was nailed down the carpenter discovered that, at one end, there was a small piece of wood standing out a little higher than the rest. He sought for his chisel, to take off the offending projection, but not finding it, he left the den in order to bring one from his shop. During his absence some visitors came, and the hyena was admitted into his den for a time. With the usual curiosity of hyenas he instantly began an examination of the alterations that had been made, and on discovering the projecting piece of wood, he fastened his teeth into it, and wrenched up the plank in spite of the nails.

The curiosity with which these animals are so strongly imbued often acts as a preservative against danger. They are very suspicious, and if they meet with any object to which they are unaccustomed, they fear it as a trap, and retreat immediately. The farmers, whose flocks and herds had suffered from the attacks of these ravenous animals, were accustomed to place spring guns in their way, so managed, that when the animal presses against certain leathern thongs stretched across the path, the trigger of the gun is pulled, and the charge lodged in the hyena. This plan answered tolerably at first, but the crafty animals soon learned to distrust leathern thongs, and the farmers were obliged to substitute the stems of creepers. These the hyenas did not fear, and consequently lost no small number of their forces.

The cowardice of the hyena has been before mentioned, but, like other cowards, when fairly driven to bay, they fight in the most desperate manner; and they are foes not to be despised, as if they do contrive to get a hold on their adversary with their powerful jaws, they seldom loose their hold until they have lost their head, and, at all events, do considerable injury. A hyena that had ventured to attack Bruce, the African traveler, in his tent, afforded a fair example of the hyenine character, craftiness, cowardice, impudence and ferocity. He writes as follows:

'These creatures were a general scourge to Abyssinia in every situation, both of the city and the field, and they seem to surpass even the sheep in number. From evening till the dawn of day, the town of Gondor was full of them. Here they sought the different pieces of slaughtered carcasses which this cruel and unclean people were accustomed to expose in the streets without burial. Many a time in the night, when the king had kept me late in the palace, on going across the square from the king's house, I have been apprehensive lest the hyenas should bite me on the leg. They grunted in great numbers around me, although I was surrounded with several armed men, who seldom passed a night without wounding or killing some of them. One night in Matsha, being very intent on an observation, I heard something pass behind me toward the bed, but on looking round could perceive nothing. Having finished what I was then about, I went out of my tent, resolving directly to return; this I immediately did, and in so doing perceived two large blue eyes glaring at me in the dark. I called my servant to bring a light, and we found a hyena standing near the head of the bed with two or three large bunches of candles in his mouth. To have fired at him would have been at the risk of breaking my quadrant or other furniture, and he seemed, by keeping the candles steadily in his mouth, to wish at that time for no other prey. As his mouth was full, and he had no claws to tear with, I was not afraid of him, and with a pike, struck him as near the heart as I could. It was not until I had done this that he showed any signs of fierceness; but upon feeling his wound, he dropped the candles, and endeavored to run up the shaft of the spear to arrive at me, so that I was obliged to draw a pistol from my girdle and shoot him, and nearly at the same time my servant cleft his skull with a battle-ax.'

In a word, the hyenas were the plague of our lives, the terror of our night walks, and the destruction of our mules and asses, which, above every thing else, are their favorite food.'

[Correspondence of the New Haven Journal.]

Visit to the Dismal Swamp, Virginia.

Mortal man never conceived a more gloomy place than the entrance to this swamp. It really requires uncommon nerves to enter the thickets upon the border of the swamp, and the courage of a Napoleon would quake.

A canal is made through the swamp and it goes through the lake a part of the way. On the bank of the lake the stage road has been

laid out, and we were driven over this road, leisurely, and made short excursions into the thickets when we could summon sufficient courage.

We were obliged to leave our vehicle in charge of our driver and penetrate the thickets with an old negro, who acted as a sort of guide. We would send him ahead to make a division in the cloud of mosquitoes, that was always hovering over and about our heads, and then we would follow in his wake.

Visions of canebrake serpents, and copperheads, kept haunting us, and our fertile imaginations kept a huge alligator before us, ready to swallow us—body, soul and breeches. But we did not see an alligator, and have since been informed that alligators are not found in the swamp.

But the animal creation is numerous, and snakes and lizards are found in abundance, besides all kinds of water-fowl, and insects, and every thing that creeps on the face of the earth seem to be striving for an existence in this swamp. Noah's Ark never represented the animal creation better, or was never filled with so many living and creeping things as now exist in the Dismal Swamp in Virginia.

Birds of the most beautiful plumage abound in this swamp, and we noticed some great indolent looking herons, who seemed quite tame, and hardly seemed aware of our presence, and certainly looking too lazy to stir. Huge bullfrogs, not quite as large as a common dog, were lying about on the bank of the lake. Dense swarms of mosquitoes, ephemera, and sand flies fill the air. Snakes and lizards of the most horrid proportions crawl among the underbrush.

The vegetation of the swamp is more luxuriant than can be seen in any other part of the world. The timber, is pine, oak, sweet gum, black gum, holly, the beautiful tulip tree, and the cypress loaded down with long festoons of moss, that give the whole vegetable creation a peculiarly sombre appearance. Trees and shrubs that I never heard of before, were found upon every side, and our ebony guide told us their names and shewed his knowledge to a good advantage, and seemed to us a second Audubon. Immense canebrakes, so thickly interwoven with vines as to prevent our passage thro' them, were encircling us upon every side, when we changed our course and turned toward the Lake. We arrived there about sunset, and were just in time to hear the musical entertainment that is given there every night by the bullfrogs, tree-toads, whip-poor-wills, turtle doves, and musquitoes. A grand overture by the bullfrogs was the first performance we listened to, and it was admirably executed, especially the bass, by the big-mouthed fellow in the distance, whose mouth opened and closed like a tobacco box.

Then came a solo performance by a tree-toad; perched upon the limb of a tulip tree exactly above our heads. The most beautiful passages in Casta Diva were performed by an old musquito that alighted on my arm, and began to try the quality of my broad-cloth. He had an excellent Soprano voice, but lacked emphasis and articulation.

It was getting dark when the grand finale commenced, and we only stopped to listen to it before starting homeward. No idea can be formed of its grandeur.

The whip-poor-will opened the grand chorus in a monotonous strain, followed by the clear distinct notes of tree-toad, and the plaintive strains of the turtle dove, while the air was chanted by about ten thousand mosquitoes.—Then came the thunder tones from the bullfrogs, and they opened and closed their mouths with as much precision as the images on a hand organ.

Soon the thunder tones of the bull frog orchestra began to sound along the borders of the Lake, and seemed to echo like the reverberation of distant thunder. The screech owl sent a piercing cry from yonder tree and tried to drown the bull-frog thunder. Every living and creeping thing seemed anxious to drown its neighbor, and all creation joined hands in a great medley.

During this performance we left the lake, impressed with the idea that the millennium had come, and that Gabriel was blowing his trumpet somewhere and we were unable to hear him.

We left the 'Lake of the Dismal Swamp' by moonlight, and could not help repeating the beautiful song that we have heard the 'Huck-insons' sing, so descriptive of this gloomy place, and yet human beings make this swamp their abode! Here the runaway slave finds what seems to him a paradise. Here they live on the spontaneous productions of the soil and often suffer untold hardships, rather than emerge from their gloomy abode.

NOT SO VERY GREEN.—A young and apparently verdant slip who gave his hailing place as 'old Vermont,' found himself surrounded, upon a certain occasion, by a crowd of quizzing upstarts, who seemed bent upon displaying their own smartness, at the expense of the yankee.

'Hello, Jonathan!' says one, 'where are you bound?'

'Deoun to Bosting, on a little tramp,' was the reply.

'What's your business in Boston?' continued the inquisitive gentleman.

'Oh, I'm deoun arer my pension money,' responded the greeny.

'Pension money!' ejaculated whiskeree—'how much do you get, and what are you drawing pension money for?'

'Oh!' answered the countryman, 'I get four cents every year—twot mind my own business and tewt let other folks' business alone!'

The crowd had no more remarks to offer.—The answer was entirely satisfactory.