Guaranteed Satisfactory. was found half a mile away driven into

the rail of a feace. Two heavy quarter-inch wagon tires were twisted literally

In Marshall County, Kan., the same year that the two storms already referred

and beams were twisted into all sorts of

shapes. Rod: two and one-half inches in diameter were broken equarely off. The structure was lifted from the abut-

The structure was lifted from the abutments so easily that but two stones of the three piers that supported it were disturbed in any way.

In April, 1879, there was a severe tornade near Waterborough, S. C., which was signalized by many peculiar occurrences. A hickory tree fifty-four inches in circumference was lifted bodily out of the ground and carried some distance.

of the ground and carried some distance

up a steep bank. An iron chisel was carried ninety feet and driven two moches

into a log. A basket of books weighing

ifty pounds was carried two and a half niles, and found hanging in a tree, with

the contents intact. Geraniums in pots

were carried a mile and found unin-

ured. Letters and books were carried

fix miles, and articles of clothing were

'ound ten miles from their owners'

At a storm in Missouri an entire rail-

road train, with the exception of the en-

gine, was thrown from the track, the

cars being deposited in all sorts of po-titions at varying distances from the track. In a recent storm in Kansas a

pafe with a horse inside of it was lifted

by the wind and deposited on the roof of a two-story building, while trees were

driven through the walls of houses and

many other strange occurrences were

toted. In fact volumes could be filled

with the bare recital of the strange

The Flagship of Columbus.

The model of the flagship Santa Maria,

reaks of tornadoes.

GAINS AND LOSSES.

(me the hours when we sit in the shadow That falls like the droop of a wing for ribe nest that is naked and empty When the fledglings have learned how to

free size is the heart for the old time, The time that was busy and gay. Was the world and its clamor about us. the we in the midst of the fray.

In the shadow we count up our losses ; We reep where we marched with the best the ache when we try to walk softly, The ere of our soul against rest. And we prieve for the golden heads vanished Cur children are women and men. And westful and deep is the yearning

And we feet n'er the fruitless ondesver. The labor that satisfied not, I the shadow grows thicker and longer, And the blur in our eyes is a blot On the lingering splendor of sunshine, That taps with its lances of light At the shut and barred door of our memory, An after glow radiant and bright.

To have them but children again.

Do no see nothing else but our losses, We mearning there, fools and purblind, With the crown and the kingdom before us, The endiet and turmoil behind? at the harvest lament for the seed time, the hard be less blitbe than the leaf? is there per when the plough breaks the fur-

And none when the hand binds the sheaf?

'a wings that are folded and drooping, "I ring wide in the evening's uplift; I'm hout to the stars that are showing I'm skies in a silvery rift. had our days is so hallowed

1- that when we see, just before, I be light in the house of our Father thorout through His half-open door. largaret E. Sangster, in Harper's Bazar

THE ESCAPE.

BY W. DELAPLAINE SCULL. The last palisade -- over! and limbs heig stiffened felt lissom once more with the life of twenty-five. Now for a slow and cautious creep along the gully by which water came into the township; bates on he would bethink him of that norow escape at the third doorway. Whisht! a man's head in the road, and he bent down once more behind the stream with difficulty, showing as little thunself as possible. It was an officer

coming into the town late. Very silently; the moon was troubleome to one just escaping, but, praise the lord, who watches over bold Englishnen, the guard had not yet discovered their less, and the water was bearably Never return thanks too soon! The officer reined his horse on a rising slope, and, turning in his saddle, glanced lank over the shadow-dappled land so that his eye, tunning up the shiny ribbon of stream, suddenly saw the black dot latering away against its current.

Instincts of destruction ran along the torves of his hand; he drew a pistol and bred, sending a splash of water over John's head, while the echoes amote the fortiess walls and lost themselves in the woodlands behind. A low clanor rose and of San Jago; John rose out of the stream and ran to the copses. The "panned spurred after him with drawn award, eager for the pleasure of slicing hom when anight up; in a few minutes by was alongside, but this being a shadesired spot he stayed his hand overhead thirthe stroke should be sure. In that mount John doubled like a hare and maked desperately at the soldier, who time days all at once and brought down by labele -vamily. Por the cunning Engbelinger do ked under the horse's body, the a papped out, seized his foe's leg and fort and with a sudden fierce heave shot the soldier sideways out of his saddle and on to his head. There he lay broken while the victor grasped the tabile bent to carth and snatched the same an united the animal and stuck the " appro point into its haunch; off shot the bear with a snort of pain, while the challer of pursuers arose behind, finally way as the pine trees flew by. They, as the moon entered a thick cloud has they came to an open prairie, and man of into darkness they went without more than the slightest of stumbles. miles, the horse began to breathe hard and sob, then settled into a slow

M to miles. The trot became a walk, and the walk more difficult; more miles Sel yers long ones, and the earth went and down as the darkness became gray there were low hills and shallow taxing then came rocks, and ledges, and biffs, the gray speedily thinned, the

herse stopped at a cliff wall. In the right, to the left, John looked for an opening; there was none. He resent his hands, licked a finger of the thrust thought he felt a faint freshand following the passages, holding on of their feast days, and when the first to his star with all the building instinct one came round they not only struck. that direction. After some hundred yards he came to a crack in the wall; he pashed into it. There was hardly room at thist, then it widened into a chasm, and wound along in darkness with a band of light at the top-then came a sudden desecut, and the wearied creature he rode stumbled and threw him into a pool of

The shock of the plunge brought him together again. He struggled beneath the water, came up at last, half choked, and pulled himself upon a rocky ledge with the sword still hanging from he wrist. Looking for the horse, he saw nothing but a violent commotion on the water surface, which presently ceased: a few sir bubbles came to the top and broke, that was all; his rescues had ended its life in the depths from which he had escaped.

Then he sat for a space and thought; he could not stay there, they would track him to the rock wall and cleft; was there another way to the other side? The cold, shut-in lake was quite still now, the cleft by which he had come in was dimly visible across the dark level; he come to the hidden source of the stream that passed mysteriously underground, and came to daylight in the country where the Spaniards had placed Fort miles and miles more.

San Jago. He went along the chasm and after an hour or two stood on the ing itself, miles and more miles yet. The the pinnacles, casting purple shadows as him no more; there he lay, deliriously queerly shaped as they. He climbed the mumbling about streams, and lakes, and highest of these rock-teeth and saw a slight valley came, and a few lonely stones—really great boulders of a prime val sea; he looked behind and only a faint green tinge on that horizon indi cated the grass country of San Jago, but he felt that even now they might be at the cleft in the rock-wall, those Span-

iards who treated captives so hardly, so there was no course but forward. Forward then he went, and the sand became thick and soft underfoot so that he had to use the long, Spanish blade to feet! help him in walking. At last even that Do became an emcumbrance and he would have cast it away, only the knot had become twisted and would only take a little time to undo, so he kept it out of in-dolence and ebbing wits. Here and there came a harder surface which was restful to the feet, and then he would sink for a space and try to hope he might get across this place; then he went on and on, with the glare in his eyes from below

and a hot, gray sky overhead.

The sun heated his wet rags; they became burning moist; they blistered his back, sore already from the payment, of yesterday's forced labor in the fortress; he had to turn round at times and give his back a relief by being roasted in

At last the whole place swam round him, there came moments when he seemed treading over a crimson waste under a vermilion sky, and with the first pains of thirst deadening the ache of hunger he lay down in the shadow of the first rock he reached. There he stayed ward, and the steel bent and broke under till no shadow was left, shrinking away him as the enemy glided away. But was at last covered by it, then rose again | revenge; caught it up as it twisted by a and plodded along through the scorching hours with burnt feet in his crackling His wits were all ablur, but his bodily

senses felt that the whole land lay on a vast upward slope, a continual gentle pressure back, as it were, to each toilsome step he took. In the late afternoon he felt a slight pulling tendency, a sign that he was on an imperceptible descent: then came a delicate long pleat in the sand, the ascent began again, and he fell stupidly down, with some indistinct fancy of staying there till nothing was left of him but bones-baked, dusty bones. But when his face touched the hot sand he got up again and trod on. He had no fear of pursuit now, for he was in the Thirst Land no man entered to return. The Spaniards had spoken of it, and they had let him go into it, knewing it was but taking the labor of his destruction off their own hands. He could imagine them consoling themselves for the loss of the horse and officer by telling again the tales of the desert; how to go into it for an hour was to be lost, and to be lost was to wander round on one's steps, which meant death finally. Then he resolved to lie down and bear his pains as a valiant man might, till night should come and he could follow one of the stars. By this time a little shadow lay at his feet, there was a rock not far away, and he went and lay down there, trying to be sensible and steady-headed. He was glad he kept the sword now, because if his miseries became too sore he had with it a way to cut them; sleep was denied him by the keen thirst that baked his tongue into wood, but it was much to escape the red-hot fingers

As he lay there with his battered old hat over his face the stillness came terribly on him at times. He thought he heard distant voices calling, and fancied some foe had crept up to the other side of the stone and was stealing round on him - then it seemed to him as if he was lying on English sand and the sea was foaming round Plymouth breakwater hard by-then he raised his hat for the fortieth time to think for the fortieth time of this great Thirst Land, before his ightheadedness began once more, to gether with the burning ache for water in every flesh atom.

The shadow lengthened, the sand in it cooled, the relicf was grateful, though small. Later on the sun went down, a red globe in a purple haze; the stars appeared, and he followed one for a long time till he got among rocks and bruised his body against them in the dark. It was of no use going on till moonrise; he lay there on the stony floor, and his thirst kept him from feeling the hardness of it

for a while. At last he could bear it no longer, but ose and ran on, then presently struck against one of the stones and fell, stunned, as he had fallen before out in the sand tracks. Still the man was not When he had recovered he wiped his heavy eyes with the back of his hand and felt his way along through that rocky maze, of his race. At last the moon came out and lit the plain, showing it mounting up and up in a long, slow slope till the eve lost it in darkness, but covered so far with stones, stones, stones, like the graveyard of the whole human race. So he went on, rattling his tongue about in his arid mouth, wondering why he did not lie down and die at once, why he did not at once fall down on his blade and end his portion of life, yet persevering all the time, no unworthy man of his countryside and voeman name. He had no visions now, in the night; they were reserved for the treacherous day, when the guiding stars should be hidden.

So through the long hours he travelled, and at last shuffled out into places where the stones, that dreadful multitude all exactly alike, stood in groups only. The moon sped on her course, and the ground underfoot sent a ring from his steel-staff

Then the stones ceased altogether and a series of low ridges came; they taxed his shaky legs and arms to their full, low true. They went to work the next day. though they were, so that he lay down to winding away to right, to left, for miles sloping downward far below him, for out their ore, and our product fell off narked by the action of the barometer. highest in regard to frequency.

Looking behind, the sight of the fearful maze of wilderness he had wonderplatform; bare rock and nothing else; he | fully come through filled him with terror, went on higher still, with hunger assert- and he fled away from it, down and on, only to fall again like a child. Then for sun came out and sent yellow rays across swhile his tortured frame could carry fountains, till the sun came and struck vast upward plain, with an orange-tinted his bare head with its hot rays. Still rim; here and there gray twists, where a he lay there, now awake and, strange to say, not mad, though very weak, sorely

suffering, and hardly able to think at all. Indeed, he did not think, but merely followed up his instinct when he crawled up on to his feet and staggered along, swaying one way for many paces, then the other, hanging his hands and head, moaning in a dry, broken way, like a cut bellows, yet still going on. And then his dim eye received a refreshing momentary coolness-a plant growing green at his

Down he sank upon it, seized it, chewed the dusty leaves; there were little driblets of earth here and there. Another bit of green caught his eye; he raised his heavy head, and saw that 100 paces away the plateau on which he stood broke off sheer. He had crossed the desert, for down there, 3,000 feet below, were green plains, palms, and a river, and beyond—the blue Pacific!

The poor, wasted creature raised his bony, cracked claws and gurgled with triumph. He had cheated the Spaniards and the Thirst Lands; hurrah!

And there were more plants nearer the edge; to them he hastened, with the blade still dragging from his wrist, to fall prone on a little group of them, and on a huge puff-adder lying almost invisible along an earth-grove. Instantly the beast drew back its head and struck him

on the bare leg; then fled.

A rage filled him; he seized the sword in both shaking hands, brought it down at the marked back, missed it, fell forlarge stone, pushing the stone over its neck by an effort, and, kneeling, cut its writhing body into long strips with the fragment of his blade. Then he got back somehow to the green tufts, and while the poison worked its way to his heart, sweetened his last moments of life with those leaves, till a stupor came over him and he slept with his destroyer the sleep death on the border of the Sweet

Such was the escape of John Tisden. whose bones have long become dust, the only man who ever crossed the Tierra de Sed. - Black and White.

Twenty-two Billions Insurance.

The enormous increase in the fire insurance business of this country in recent years is shown, remarks the New York Times, by some figures just collected by a well-known adjuster, who fixes the total amounts insured at the close of 1892 at \$22,000,000,000, which represents about 32.5 per cent. of the total property valuations in the United States. In 1862 the percentage of amounts insured in the total property valuation was only nine. In 1870 it had increased to 16.78, in 1880, to 20.90, and in 1890 to 30.41. The total amounts insured to-day are nearly thirteen times greater than they were in 1860, while the property valuations are only four, or at the most four and a half times greater.

C. C. Hine, of New York City,

an excellent authority on fire insurance matters, said recently that the amount of this increase is not so very astonishing, because every industry enlarges here phenomenally, but that the percentage of increase on the values to be insured raises the inquiry whether the fire insurance mine has not now been exhausted. Whether or not these reductions as to the fertility of the fire insurance field are correct, it is certain that there never was more grumbling among the underwriters than there is to-day. The year that has just closed has been remarkably severe for fire losses, and in Brooklyn and Milwaukee the field men are in a state bordering on consternation. This condition of affairs is the result of numerous causes, extending through a she two storms are essentially different. term of years. Increasing rates and de The path of the cyclone is a parabolic creasing commissions, together with a curve. Thus commencing, for instance, complicated agency system involving m the West Indies, it trends north agents, brokers, and middlemen of high | westward until it reaches latitude thirty of little practical value in determining | to be going to the right, run to the left, and low degree, have each contributed tegrees north, when it curves to the the approach of a tornado, no matter to the general demoralization of which sortheast and continues in that direction how near to the point of the storm's inthe underwriters complain.

How They Strike in China.

strikes are unknown to China. My experience is quite to the contrary, says a for ships to be caught. At no point with- the year. They may and sometimes do compass, gunpowder and strikes, but the only one of the three which they have developed fully is the art of striking. Whenever they want anything they ask for it by announcing a strike. I tapping his sword on each side did not appreciate at first the importance but two hundred of them came up and mobbed my house. No violence was attempted, but the interchange of views was like the chattering of ten thousand monkeys, I vielded. The miners would strike if they did not like their shift boss, strike if they had a bad dinner in the company kitchen, strike for any reason. Once when mine, mill and furnace were in full blast the miners all struck for some insignificant cause. Tired of expostulation, I sent for the head men and told them gravely that I had no objection to the strike if the men wished it, but that the mill and furnace could not stop. They had to go right on, and it was very costly to keep them at work without ore. I said that I did not think it was right to make the company pay the loss, and that I should fine the workmen three days' pay for every day they were off duty. There was a great hubbub. The miners came to know if what the head man told them was and striking was free in that mine ever

seventy-five per cent.

TORNADOES

WERE VERY DESTRUCTIVE IN THIS COUNTRY LAST YEAR.

The Causes Which Produce Them How They Differ From Hurricanes -Remarkable Phenomena of Their Occurrence,



he San Francisc Chronicle, was signalized by the occurrence of a greater number of fatal and destructive convulsions of nature and disasters

of various kinds than almost any other on record. During the first six months of the year the total loss of life in the United States alone from these causes was upward of 3600, while the disasters in other parts of the world will double or treble this appalling total. Of the large list of casualities in this country no less than 460 deaths were caused by tornadoes and thunder storms, there having been four of the first named disasters of unusual violence and a large number of less severity.

Happily for Californians, they live in a region where loss of life or property from tornadoes is absolutely unknown and even the most destructive winds-the infrequent northers -do not inflict a tithe of the damage in an entire year that is caused by a single whirlwind such as there have been so many of in the East during the present season. The people of this coast, nevertheless, take a deep interest in these direful phenomena of nature, enhanced, undoubtedly, by the security they feel that they are in no

It is to the peculiar physical formation of the great interior basin of the Mississippi and Missouri valleys that this country owes the fact that tornadoes are more frequent and destructive than in any other part of the world. With no great mountain ranges between the Rocky Mountains and the Appalachian system, it follows that there is no natural Palm Coast, as the Indians called it in obstruction to the sweep of the wind across that wast territory, and hence it is terrible phenomenon.

In Lieutenant Finlay's interesting little work upon "Tornadoes" are embodied facts and deductions made from the examination of over a thousand of these occurrences, from which certain rules in regard thereto are laid down with measurable accuracy. Ordinarily cyclones and tornadoes are spoken of indiscriminately, as being one and the storm, even to the shortest distances, the other building from which egress is im-

northeast. The tornado cloud assumes the form of a funnel, the small end drawing near or resting upon the earth. This cloud, or the moving air of which it is the embodiment, revolves about a its work of destruction and the model of the surface of the ground the surface of the ground the surface of the ground to occurred, another tornado tore down a massive iron bridge. It lifted the beavy structure squarely from the piers it is the embodiment, revolves about a its work of destruction and the model of the piers and dropped it into the river. The rods central vertical axis with inconceivable rapidity and always in a direction from right to left. The destructive violence where it removes the tops of tall trees, HE year 1892, says of the storm is sometimes confined to the the roof or cupols of a house, without

clone, is always a land storm, and it follows a pash varying from a few yards to eighty rods in width. The general direction of movement of a tornado is invariably from the southwest to the



immediate path of the cloud, as when disturbing the remainder of the object the small end just touches the earth. When the body of the cloud lowers and almost a human intelligence guiding the more of it rests upon the earth the vio- storm and discriminating between obthat here is found the home of the lence increases and the path widens to jects to be destroyed and those which the extreme limit.

The tornado with hardly an exception disappears before the going down of the

attacked. Sometimes there appears to be are not to be injured.

By due attention to the appearances occurs in the afternoon, just after the | which invariably precede the coming of hottest part of the day, and generally a tornado one may, if he retain his presence of mind, be prepared to avoid dan sun. The hour of greatest frequency is | ger to his life by seeking safety in flight. from 3 to 4 p. m., though they fre-quently last until as late as 8 p. m. Thus, the pathway of a tornado, as al-ready stated, is always from the south-Along the immediate pathway of the west to the northeast. If in a house or

ward the storm, and invariably avoid

torando is seen approaching, stand facing

and vice versa. Always run to the

northward or southward at a right angle

from the storm, giving the benefit of the

doubt in favor of the north. The path-

way of a tornado is usually so contracted

in its width that an ordinary person can

readily put himself beyond its reach. On

level land, as on open prairies, the storm

can be seen at a distance of five or ten

miles, and this gives sufficient time for

a self-possessed observer to get out of

The awful force of a tornado cannot

be realized by anyone who has not had

an opportunity to become personally

familiar therewith. The history of these

disasters is replete with examples of the

most extraordinary character. Thus an

account of a storm which took place in

Kunsas in 1879 relates that a sulky plow

weighing 700 pounds was carried a long

distance, and one of the axles, one and

three-quarter inches in diameter, was

snapped squarely off. Wagon wheels

were broken into splinters and the tires

twisted into all sorts of shapes. A man

was carried into the air and there came

in contact with a horse whose tail he

seized and was thus carried along for a

considerable distance and finally dropped

to the ground comparatively uninjured.

A two horse wagon with one live horse

attached to it, the other having been

height of a hundred feet in the air. A

hog weighing 300 pounds had a timber

seven feet long and six inches square

driven directly through its body. The

wheel of a wagon was carried a mile,

while chickens were stripped of their

feathers and their bodies carried three

miles from home.

killed and torn away, was seen at

the way in full time.



THE SANTA MARIA AS SHE LOOKS NOW.

ship. A liberal guesser, not familiar with his subject, might suspect that it was an artistic packing case or an ornamented piano case, but a ship-never. How Columbus ever got across the salts guessing around Erie Basin, where the model caravel was brought in on the teamer George W. Clyde. One of them ooked her all over yesterday with a cornful expression on his face.

"Anything like that ever come across the salty?" he said. "Not on yer life. She might have hauled a load er coal from Canarsie, but nothin' like her ever ome across th' 'Lantic, I'm a tellin'

Then be tacked off the wharf with an injured expression, sizzling between his teeth the famous song of the watermen; Leakin' like a lobster pot,

all of which probably referred to the model caravel. Outside of the watermen are a lot of other people who have looked at the small ship with profit and pleasure, and crowds have visited the dock to get a good look at San Domingo's gift to the Fair.

The caravel, which was consigned to F. Ober, has been put on. . flat car and taken to Chicago. - New York World.

Thomas A. Edicon.

The accompanying portrait is that of an American whose numerous inventions



and discoveries have placed him in the front ranks of scientists in this or any other age. Thomas A. Edison has for years been hailed as the king of electricians. Until a few years ago electricity was man's master, but through Mr. Edison's genius it has been made his slave. Mr. Edison's extensive laboratory at Menlo Park, in New Jersey, is known far and wide, for there some of his mosbrilliant scientific problems have been worked out to a successful conclusion.

The London Produce Market Review tells that large quantities of molasses are used in the manufacture of "cattle

antil it finally disappears oceanward in ception. The tornado season is embraced the vicinity of parallel fifty degrees between March and October, the straths sorth. The diameter of the path varies of greatest frequency being May and rom several hundred to over 1000 miles. July. There are exceptional instances in There is an impression in America that at the immediate centre of the storm a long series of years when tornadoes here is a dead calm, a most fatal place have bren reported in every month of

THE GREAT KANSAS CYCLONE OF 1892. same thing, yet as a matter of actuality | smallest objects often remain undis- | possible always seek the west side, toturbe !, although a few yards distant the largest and strongest buildings are crushed | the cast side. If in the open air and a to atoms. Observations with the barometer are it as it draws near. Then if it appears

writer in the Engineering Magazine. In the storm's centre does the air occur in the Southern States during the The Chinese have invented the mariner's ectually move or whirl in a circle, but | winter and spring months. Taking the

TORNADO CLOUD IN DAROTA (FROM A PHOTOGRAP II).

The tornado, differing from the cy-

here is a cyclonic tendency of the at- | whole United States together and aver-

The ordinary appearance of a tornado | trunk was torn to pieces and the lock | well-known fattening properties.

In Jackson County, Mo., in 1879, tornado carried away a house, no part nosphere about the region where the laging the dates of occurrence for a long eleft continued there like a narrow road upward. Then he knew that he had this huge inclined land, and saw its edge potent mode of warfare. They went into the mine with delightful regularity. seing generally from sixty to eighty Missouri and Iowa. Of all the States in ground uninjured. Several garments in the hard moonlight, and the rock floor sloping downward far below him, for out their ore, and our product fell off sarked by the action of the barometer.

They put in their time, but did not put out their ore, and our product fell off sarked by the action of the barometer.

They put in their time, but did not put out their ore, and our product fell off sarked by the action of the barometer.