## TOTAL PALE

AN IMAGINATIVE ROMANCE OF ARCTIC EXPLORATION.

WRITTEN FOR THE DISPATCH

## BY HERBERT D. WARD.

SYNOPSIS OF PREVIOUS CHAPTERS,

In a sleeping car journeying from the West to Chicago are six chance acquaintances, Millionaire Vanderiva, of Cuicago: Prof. Wilder, inventor of the Aeropole: Sergeant Will-twig, who was with Greely and with Lockwood on their Polar expeditions; Royal Sterne, a technical institute student; Jack Hardy, who is going into real estate in Chicago, and Frederick Ball, an astronomical tutor. Out of a jesting remark a serious expedition to the North Pole in Prof. Wilder's airship is avranged. Millionaire Vanderlyn furnishes the money, Wilder the conveyance, Willtwig the experience, and the three vounger men the enthusiasm. Just as they sunt officers arrive to serve an injunction on Wilder. The action is brought by Hennepin, who claims the airship is his invention. After some exciting experiences the officers are persuaded to desist. The airship gots off, and when over Lake Michigan Sergeant Willtwig remembers that he left his supply of matches in Chicago. Only a few can be found in the pockets of the explorers and they are preserved as if they were gold. Soon a strange, new sickness steals over the party. It is like sensickness, only more severe. While they are prostrated by it they narrowly escape dashing against a mountain top in Canada. All goes well until in the far north they espy a ship in the ice and from it a man is signaling.

"How can he eat what will be frozen as hard as steel in an hour's time."

company aboard the Aeropole according to

a luciter," replied Jack Hardy, dryly.
"Why not drop him down a few?"

would increase their number. But not

"How many shall we give him, gentle-

"Shall we give him more than one?" de-

The travelers looked at each other doubt-

"Yes!" said the tutor bravely. Prof.

Faces dark with doubt met the inquiring

glance of the Sergeant. There was no an-

swer this time. That extra match might

save their own lives; it might also do as much for the outcast below. The hazard

was too great for an expression of lib-

this point, "Give him his share, and be done with it. There are 31—give the fellow five. My conscience won't be clean unless

This munificent suggestion created a sen-

sation, but the leader's face lost none of its stolidity. His eyes softened for a moment,

soon understand. But we can add that

Who else but he in this mixed

extra match with our blessing!" His voice

party understood the possibilities of Arctic

privations of which the pen may never write? Yet for him to give that match was

heroic sacrifice of self. That slender bit of wood, capped with phosphorous, might

absolute salvation of their own Polar ex-

Was this the leader who spoke? Was this the unmoved man, whom they were secus-

tomed to fear a little and respect much? But may not a man be unmoved at his own

peril yet melt at the distress of others, and

"For heaven's sake do what you think est. Give them all if you want to! Only

don't look so. I'll go crazy if this goes on. For the first time the tutor lost his equi-

poise. His organization was as delicate as

party quickly seconded the noble sugges-tion of the Sergeant and 25 matches were

replaced in the tin box, which the Sergeant

put in his breast pocket. Now the provisions, wrapped in tins and

furs, were ready to drop through the trap door in the bottom of the airship. The

Captain had written a note explaining the

reason of their apparent heartlessness, and

the whereabouts of the six precious

matches, and expressing the hope that the

party might be able to return to rescue the castaway, in two weeks perhaps. The little

bundles of life rolled and toppled and tell and bounded a hundred fe t below them by

the side of the ice-nipped whaler. Then

The passengers fancied they heard a cry of joy overtake their wonderful flight.

Through glasses they saw a skeleton stag-ger to the heaven-sent provisions, and fall

upon his knees, and lift up his hands and

There was moisture in the eyes of Ser-geant Willtwig as he looked. Jack and

Royal, who at first had expressed mutinous signs of dissatisfaction at what they were

pleased to call "a unique case of inhumanity," became silent. They began to respect their leader profoundly. A man who could be as hard as steel, and as soft as fleece

when tenderness was required, was one to

"What does she gauge, Mr. Ball?" de-manded the commander of the tutor, as if putting from his mind the moving sight.

"Only 128, sir; we are slowing down.

The inventor cast a despairing look at the

Sergeant Willtwig now drew the mem-

bers of this Polar expedition about the door

of the engine-room and spoke:
"Gentlemen, the machinery of our airship

has become deranged."
"Not out of gear," interrupted the inventor with a heetic blush of pride. "Every

But it is going. Then what is the mat-

"You see! She is losing every minute. I

ter?" cried Royal impulsively, thinking himself intensely practical.

"What does she gauge?" asked the inventor with a nod at the tutor.

engines to do the same thing. A locomo-tive is like a thoroughbred horse. It has

"One hundred and twenty-seven."

Jack and

the Aeropole sped on again.

What does it mean?"

It won't go.

Sergeant and groaned.

one of his chronometers. The rest of the

e more of a man for a' that?

The men looked at each other blankly,

prove under certain circumstances

pedition.

whether he inclined to give four or not.

There remained exactly 31, and no more,

The four men nodded eagerly.

fully. Jack half shook his head.

"Three?" continued their leader

their temperaments.

softly.

gested Royal.

CHAPTER VIL

THE HIGHEST ALTITUDE. The four men confronted each other in alarm. The white face, the drawn expression of the leader of the expedition, affrighted the three men who were left in the cabin; the excitement of those who had seen the man in the abandoned ship below them communicated itself to the chief's face and added thereon deeper lines of anx-

"What is it?" they simultaneously oried. "There's a ship below and a fellow waving something on it-that's all," said Jack Hardy, almost beside himself at the first evidence he had seen of Arctic horrors. "What's up with you?"

"Where?" demanded the Sergeant imperatively, disregarding the last interrogative. The anxious furrows of his face deepened still more. He knew too well what Polar abandonment and Arctic de-

"There!" pointed the tutor. "Use this glass-look!"

"Can't we stop and take him in?" asked Royal. "Of course we must." "We can'tl" This cold-blooded answer came from the engine room. There stood the inventor at the doorway, every nerve

quivering. "My God!" he ejaculated, putting one hand to his brow, "We can't! We simply can't!"

At this extraordinary speech, which emanated from the sensitive lips of the most tender-hearted man among them, Jack and Roval started forward with a mutual impulse of horror. Youth is generous, and the boys of the party would have each given their last cent or shared their last mouthful to keep a fellow creature from suffering. It was incredible to them that the Sergeant, who had been himself steeped in suffering, should not have the same sentiments. Simultaneously the thought passed their minds that the air-this point, "Give him his share, and be

sickness had clutched him again, and turned "What - do you mean?" demanded you do." Jack Hardy. "You wouldn't let a fellow die in your sight! I say, stop the car and

"That's the ticket," added Royal Sterne with quivering lips. "I say confound the North Pole. We'll save that poor fellow

The two young men approached the inventor threateningly, who, in his turn, trembled violently, but did not flinch. Sergeant Willitwig, who had been lookg carefully with a glass out of the open stern window at the derelict which was now far behind, turned at the sound of these hot words, and approached the two

"Halt!" he cried commandingly. "Who are you that dare to give orders on this ship? You are liable to arrest. Do you think we are careless of human life? Imperative circumstances demand that we do descend, and when we do, may God

The heroic tone of the Sergeant's voice nwel the young men. They turned back. They perceived that some unforeseen danger

menaged their expedition, perhaps vitality. The tutor looked on dismayed. Wilder," asked the Sergeant lifting a white face to the inventer, "is it safe

for you to slow the Aeropole down?" The word "safe" was ominous as the tone in which the question was uttered. The four riveted their gaze upon the haggard engiturned away. Well, then," said the Sergeant, "put her

about. We well return to the abandoned



The Highest Latitude, Hurrah! Let us descend to an altitude of 200 What's her speed now?" He turned to the tutor anxiously. The youngest member of the expedition conculted the air gauge, and answered:

One hundred and fifty-two." At these words, not in themselves painthe Sergeant and the inventor exchanged

What the dickens is the row, anyway?" blurted out Royal, like a child, unable to bear the ignorance of the apparent mystery will tell you in a few minutes, after

we have done what we can for the unfortun-ate man below," replied the chief. By this time the airship had described a huge circle, and was making back for the scene of starvation and despair. "But if you are not going to descend, aw on earth can you do anything?" in-

part is all right. It simply is losing power. quired Royal, wonderingly.
"Hand me your keys to the provision closet," was all that the Sergeant deigned

The quiet tutor caught the idea. "Ab!" he exclaimed, pointing to the open window at the bottom of the car. The call it a case of nervous prostration," ex-plained the inventor sadly. "I have known

"We will drop two months' provisions and some furs," said the Sergeant, laconi-

Already he was throwing boxes of pem-Already he was throwing boxes of pemmican, cannel meats, vegetables and fruits are apt to suffer for lack of energy. Then suddenly the disinclination of "There he is!" cried Jack peering ahead | work passes off, and everything goes all and below. "I'll bet you a dollar he hasn't

right. All engineers understand this," he urged, gazing into the incredulous faces of "H's his own fault, then," answered Ser-ant Willtwig, "He has plenty of fuel. absurd. Now my engine here—this geant Willtwig. "He has plenty of fuel. There is the whole ship." electrical machinery—is of a high-er order. It is more like a human being.

'But perhaps he hasn't a match!" "That is probably so; then of what use It is as sensitive as a woman. This is a are the provisions?" suggested the tutor. | terrible journey. My engine understands

has nervous prostration; she is refusing to work. Good God, sirs! I can't blame her, for it is cold, cold and dangerous, and she is my child!" As he spoke he patted a huge coll of wire with unutterable tenderness.
"You see," proceeded Prof. Wilder with shaken voice, "the responsibility we have As he spoke he patted a huge shaken voice, "the responsibility we have put upon her has been too prolonged. When you were boys didn't you 'let the old cat die out,' as you called it, when the swing stopped gradually of its own volition? Here is a gradual collapse. She is slowly but surely giving out." He again looked at the tutor inquiringly.

"A hundred and twenty," answered the tutor gravely. "Gentlemen, if we had not gone back to the shipwreck, even at this rate of decrease of speed, we should have

it. She is troubled; she is frightened; she

rate of decrease of speed, we should have attained the Pole."

"And it she had stopped—paused for an instant—she might not have been able to start again for a week or perhaps a month. We simply could not descend to the poor fellow's relief. The machine needs a thorough rest." The inventor spoke as if he were a nurse attending an overworked and worried patient, and, indeed, perhaps he

"This is a go. How near can we come?"
exclaimed Jack Hardy. "I vote we go back
as far as we can. If we've got to be stuck

anywhere with a dyspeptic engine, I vote to be as near home as possible."
"No," answered the Sergeant decisively.
"We go ahead. Safety lies in advance. Reliet, if we must need it, would miss us anywhere except at the Pole."
"One hundred and fifteen!" interjaculated the tate.

"If she can only hold out five hours," thought the leader to himself. Every mile

gained by air was equivalent to five hours



Food for the Solitary Sailor. untold hardship by ice. How often had it taken an expedition nine hours to make an advance of two or even three miles! Four miles a day in that untrod region is a successful trip. Six miles is unusual. Nine miles a miracle.

Without eating, without smoking-al-most without talking, the five sat watching the dying machinery. The buzz of wheels took to themselves lower and lower tones. Now and then a tremor shook the vessel, not of dislocation, but as if it were a horse

an hour. The Sergeant was bitting his lips to restrain his terrible impatience. He had stationed himself in the bow window, and was searching the horizon incessantly with his glass. Suddenly he gave a start of recognition

conquerable!"
The Sergeant was in an ecstasy of emotion. His breath came fast, and the yapor of it enveloped his companions. The car sped over this undiscovered country faster than any previous device of human ingenuity had ever done. It was bitterly cold The men shivered in an atmosphere far below zero, but they did not notice this.

Suddenly, the commander of the expedition turned to his companions, with a face charged with excitement: "Yell, boys, yell!" he shouted. "Where is the flag of the Union?"
"Mad as a March hare," whispered Jack

o Royal. "I say it's horribly cold." But the tutor caught the Sergeant's two ands and held them. The same indescribable elation clutched them both and bound

hem together.
"Hurrah!" cried the tutor with choking
voice. "The highest latitude! Hurrah!" rrested the enthusiasm of the explorers.

## [To Be Continued Next Sunday.] EXTINCT CATS AND DOGS.

Curious Feline and Canine Creatures That Formerly Existed.

"There used to be cats in North America 100,000 years ago," said a paleontologist to a writer for the Washington Star. "Great carniverous creatures of the feline tribe roamed over this country then in enormous numbers. They are all extinct, and have left only their bones behind to tell the story of how they lived and what they fed upon. One often reads of the art by which the naturalist is able to restore the skeleton of an animal from a single bone, and in fact a good many mistakes have been made through over-confidence on the part of learned gentlemen in reconstructing fossils by theory from insufficient material. But there is no possibility of mistaking the testimony afforded by the teeth. They tell all about the manner of existence led by heir former owner, giving accurately the habits, diet and approximate age of the

"Thus it is very fortunate that teeth last longer than any other objects in nature. At ervation the molars and incisors which were used to chew with by the mighty reptiles of millions of years ago. It is from his dentition that science declares man to be carnivorous only by habit and not by nature. I spoke of that the other day to a nature. I spoke of that the young man in search of information, who young man in search of information, When I asked him what he meant by that he said that the dentition of a hen would certainly not indicate that it was carnivorous by nature, and yet it evidently was so, judging from its addiction to worms and preference for flesh in general. However, as I was going to remark, the piercing and cutting teeth of some of these cats of long ago are the most perfectly adapted instruments for cutting purposes that ever were seen, being unequaled by any manufactured tools for

Patches for Kid Gloves St. Louis Gtobe-Democrat. 1 "Kid gloves will rip despite our best efforts to keep them in good condition," said an exquisite young man at the Southern last night. "But we have at last learned how to mend them. Instead of sewing up the rent, as formerly, we now take a smal piece of court plaster or surgeon's plaster (the latter is the better), turn the glove wrong side out and neatly apply the plaster over the rent or rip, first having drawn the rent part of the glove nicely together."

Buging is absolutely the best insect ex-terminator ever discovered. Positively non-poisonous and easy to use. 25 cents.

GRACEFUL

That Will Grow Luxuriantly at the Beck of the Young Gardener.

PLANTING THE LITTLE SEEDS. Wonders Wrought by May Sunshine and

the Spring-lime Showers. USEFUL HINTS FOR THE AMATEURS

[WRITTEN FOR THE DISPATCH, ] Nothing is so delightful for our young people, especially our girls, than home gardening. It is a healthful recreation and a perpetual aid to the understanding of nature's wonders.

Let me suggest the Drummond phlox gardens will be interesting all summer. They repay any care with a wonderful readiness and wealth of loveliness. Now, on May 10, say, you have your seeds and your tools, your beds all forked, manured, hoed, raked and ready for planting. One thing more you need-a piece of board about two feet long and seven inches wide. You stand by your little plot of brown earth and think of all it holds for you of beauty and delight, that you are the magician who will call forth all that sweet pageant from the silent, passive soil. It seems a very simple thing, the planting of a seed, but I never do it without a feeling of awe, as if it were a sacred thing among the mysteries of God. You kneel by the little plot—If the ground is damp bring a mat or a piece of olded carpet to kneel on, for you don't wish to take a cold as the first step in your gardening.

How to Plant the Seeds

You lay your bit of board straight across the bed about four inches from the end. You lean one arm on it to hold it firm, and with a little stick draw a furrow an inch deep in the earth along its edge, straight and equal as you can in depth all the way. Into this begin to drop your seeds as evenly as may be—they are so large you can see them distinctly. When you have sown that furrow make another on the opposite edge of the board and fill that. Then lift the of the board and fill that. Then lift the board and lay it down carefully on the other same way as the phlox seeds, in the side of the last furrow and again make a groove along the edge and plant, and so on to the end of the bed. The width of the board gives you just the right distance be-tween the rows and saves a deal of trouble

in measuring.

Now with your hand draw over the seeds the earth that was displaced in making the furrow; it will give them just the right depth of covering—about twice their diameter. That is the rule for planting almost all seeds. Now take your board and lay it over each row, leap on it gently to make the earth perfectly firm—not peaked. make the earth perfectly firm-not packed hard, but firm. Do this all along the length of the bed till it is literally smooth as a carpet. Now take your watering-pot and lightly sprinkle the bed all over. Don't sprinkle too long in one place, or you will be the bed all over. wash out your seeds; go round and round the bed, holding the watering-pot high as you can to make the shower as gentle as possible. You need only just to make the surface damp.

Keeping an Eye on the Weeds. Water the bed lightly every night at sun-et-unless it should rain. If the soft May showers descend, every drop is precious— there is nothing so good as the sweet rain of heaven for our gardens. If the weather is warm and your watering is faithfully done, you should see in a week, or ten days at most, faint green shoots along the straight

lines you planted.

And now I will show you the advantages of planting so carefully in straight lines Before the phlox itself appears you will see as the young man spoke, and their set expression.

"All right," sang out Jack Hardy recklessly, "of course, let them go!"

The rest nodded doubtfully. Now for the first time the Sergeant gave his own opinion.

"There!" he exclaimed, pointing down to a black vertical line in the distance. "There is our cairn! The highest latitude ever reached by human foot! Only 100 miles past thing between these lines and then the conquer the under the processions of straight lines. Pull up every green thing between these lines and then the conquer the under the processions of straight lines. The light is a comb to and the conquer the under the processions of straight lines. The light is a comb to and the conquer the under the processions of straight lines. The light is a comb to and the conquer the under the processions of straight lines. The light is a comb to and the conquer the under the processions of straight lines. The light is a comb to and the conquer the under the procession increasently with the procession.

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The rest nodded doubtfully. The highest latitude ever the procession of straight lines are the procession of straight lines. The procession is of the procession of straight lines. The procession is of the procession of straight lines. The procession is our cairs! fro in the soil to remove roots and disturb new sprouts, but be very careful not to go too near your phlox plants, except to pull with careful finger and thumb the little weeds that have spronted very near. This you will have to repeat again and againnew weeds keep coming in succession

pursuit of the enemy. The alarm over, the

A Garden of Sweet Peas. In the second or third week in May you may transplant your sweet peas from the house boxes to the open-air garden. People do not generally know that sweet peas are most easily and successfully transplanted. I discovered it for myself accidentally—in fact, I was driven to it by my little friend, the song-sparrow, at the Isles of Shoals. The place is possessed by these dear, friendly little birds whose song is sweeter than words can express, but they will hardly let me plant at all out of doors, scratching up and eating the seeds as fast as I can put them in. They are so tame, they sit on the fence of my little inclosure and eye me askance if they see me at work putting seeds in the ground, and the moment I leave the spot, or they think I have left it, down they swoop and go from one end to the other of my carefully planted furrows and take every seed, leaving only the empty hollow groove freshly dug out by their little

feet. It is trying, and when I do plant out of doors I am obliged to have a cover of woven wire to fit over my flower beds to keep off the dear little peats. They are especially trying in the case of sweet peas, for they wait till the peas begin to sprout and then

they devour every single one! Transplanting the Little Beauties. Now for the fun of transplanting! It is the day is overeast very good, but if it is the sunniest ever dawned no matter; if you put down your plants as I shall teach you they will not droop a leaf in the hottest sun. Your little garden bed is all ready, your boxes of treasures about you. Now take your hoe and make a straight line about four inches from the edge of your bed, lengthwise; if you find difficulty in making it straight, take a string tied to two sticks, push the sticks into the ground, drawing the strings tight between, and you will have lown evenly from this line, drawing the earth toward you and leaving the smooth cutting six inches deep against which to stand your plants for support,

Slip your hand into one corner of your plant box down to the very bottom and take up carefully a few pea plants. Once a few removed, the rest will come up easily. Don't break the long white roots or dislodge the little pea still clinging there it you can help it. Stand each plant against the wall you have sliced down smooth with our hoe. Put the plants in, not more than three inches apart, with the roots straight down, but if very long no matter if the ends lie horizontally an inch in the bottom of the trench; draw the earth half way up over them loosely so to hold them in place, and then gently fill the trench with water, draw the rest of the earth about the roots press it firmly with your hands about each separate plant, making each stand perfectly straight and even, and be careful that all the root is perfectly covered; indeed, the earth may come up an inch about each slender stem without doing any harm. This is delightful work, and when your first row is done you will look at it with joy and

pride, so green, so fresh, so promising it will be. How to Make Papsies Thrive. You can scarcely make the soil too rich or keep it too moist for the well-being of pannies. For the euriching of your bed feet, by two wide-I should put a bushel at least of well-rotted cow manure and mix it most thoroughly with the soil. And if you can find a spot which the sun reaches for only half the day they will flourish much

better than if they have his light contin-

ually and their flowers will be twice as

large. Pansies love the shade. If you make your bed under some tree, the will like it much. If you are sowing seeds, follow the instructions for the phlox gardens

If you are transplanting, you must set the little plants about four inches apart. When all are in and the bed is full, water them copiously; it the sun shines, cover them with newspapers pegged down till evening, and then take off the coverings—don't forget. If next day is bright and hot, cover once more, keep wet and in a few days the

get. If next day is bright and hot, cover once more, keep wet, and in a few days the bed will be safe.

I think the poppy gardens must have three beds four feet long and two wide. Then we can plant each kind by itself, California poppies in one, in the second the mixed carnation poppies, and in the last the wonderful Shirleys. I should add a peck of sand with the half bushel of manure to each bed. Cover the seeds with only a slight layer of soil about twice their thickness; hardly a layer at all in the case of the hardly a layer at all in the case of the Shirley seeds, for they are so delicate as to be almost invisible; the carnations are much larger, the Californias larger still. Cover them with newspapers and water every night (unless the weather is wet for two or hree days.) They should be up in a week if

the weather is favorable. Nasturtiums Make a Nice Showing. Those who choose nasturtiums for a garden will have but little care, for they flour-ish in all sorts of soils and don't want watering unless there should be a desperate drought, and once freed from weeds they take care of themselves almost entirely. The seeds themselves are most interesting. They are carefully ornamented. Deep grooves run parallel to each other from end to end of the seed, which is like a clumsy Durch boat in shape, but what a freight of loveliness each carries below its shelving

A nasturtium garden need net be ma-nured. I have found the poorer the soil the richer the flowers will be. If the soil should be rich the plants will run to leaves and the flowers will be comparatively few. Plant them, after your bed is thoroughly laid out as for phlox, in straight lines as much as six inches apart, at least, for they must have room on all sides to grow. Cover them a half an inch deep, press down the earth and leave them. They will germinate more rapidly if you water the bed at night if the weather is dry. But after they are up I never water them any more; they don't like it; don't need it. Put your row of climbers against the house, or a fence or large rocks. For rose campion gardens plant the fine

CELIA THAXTER.

DRIVER ANTS IN AFRICA.

They Have Enormous Appetites and Are Dreaded by Everybody. "The most terrible of insects are the 'driver' ants of West Africa," said an entomologist to a Washington Star writer. "They are so called because they drive before them while on march all other living creatures, no animal being able to withstand them. No beast, however formidable, dares to cross their track, and they will destroy in a single night all the pigs and fowls on a farm. The huge iguana lizards fall victims to them, as do snakes and all other reptiles. It is said that they begin their attack on the snake by biting its eyes and so blinding the prey which, instead of running away, writhes helplessly in one spot. Natives of Africa assert that when the great python has crushed its captive in its folds it does not devour it at once, but makes a circuit of at least a mile in diameter in order to see

whether an army of driver ants is on the march in the neighborhood. If so, it glides off and abandons its prey, which will soon be eaten by the ants. "If an army of these ants approaches a village the entire population is compelled to fly. Sometimes the people may be obliged to take to the water in order to save themselves. The insects travel in the night and on cloudy days, because they are quickly killed by the direct rays of the sun. Should the sun come out while they are Should the sun come out while they are making a journey they construct a continuous arch over their path out of earth agglutinated by a fluid excreted from their mouths. In cloudy weather an arch for the mouths. In cloudy weather an arch for the protection of the marching workers is con-structed of the bodies of the larger soldier ants, whose widely extended jaws, long legs and projecting antenm, intertwining, form a sort of network. In case of an alarm the arch is instantly broken and the insects which composed it join other soldiers on the flanks of the line, who seem to be acting as scouts, running about furiously in

arch is renewed and the column proceeds as MARS APPROACHING THE BARTH.

It Will Be Near in August, When Astronomers Will Investigate. Washington Star.] The mouth of August next is expected to bring important if not wonderful and sensational developments in the study of our mysterious heavenly little kinswoman. On the 5th of next August Mars will arrive at a point opposite this earth, which it reaches but once in 15 years, where the distance between the two planets will be reduced from 141,000,000 miles to 35,000,000 miles. Upon that night a thousand telescopes will be leveled at the planet, which will nose in refulgent beauty in the Southern skies, and a thousand eyes will seek to pierce the veil of distance that conceals the knowledge for which science thirsts.

Wonderful results are expected by reason of the marvelous improvements that have been made in astronomical instruments within 15 years and since the last mos favorable observation was made. With the powerful lenses and the photographic ap-pliances of to-day it will be as if the faraway visitor tempted by curiosity, had drawn nearer to the earth than ever. Although Mars will be 35,000,000 miles away, the powerful Lick telescope will magnify her to a size as if viewed at a distance of but 17,500 miles. Mars but 17,500 miles away! What wonder, then, that astronomers are feverish with anxiety for August

IS CATARRE CURABLE? A Serious Question to Many People Ans

wered. The difficulty with which catarrh is cured has led to the invention of a host of remedies which produce temporary relief only. The unthinking masses expect to find some remedy which will cure them in a few days, and to take advantage of this false hope many compounds, which have instant, but transient effect, have been devised. The people try these catarrh cures one after another, but disappointment is the invariable result,

until very many sincerely believe that no cure is possible. In the majority of cases (especially those of less than two years' duration) catarrh can be cured in a few weeks by the proper use of Pe-ru-ua. Some cases are cured by six bottles, others by four, and we have not a few testimonials who have professed a cure from even one bottle of this remedy. Where a case of catarrh has existed for five or ten vears a permanent cure cannot be reasons. oly hoped for in less than three or four months, and in some rare cases the continued use of Pe-ru-na for one year has been necessary to effect a permanent cure. But, unless the case is very old or complicated, a permanent cure is sure.

A valuable pamphlet of thirty-two pages setting forth in detail the treatment of coughs, colds, sore throat, bronchitis and consumption, in every phase of the disease, will be sent free to any address by The Pe-ru-na Drug Manufacturing Co. of Columbus, Ohio. This book should be in every household, as it contains a great deal of reliable information as to the cure and prevention of all catarrhal and kindred dis-

COACHING umbrellas, at
ROBERT L. MCWATTY & Co.'s,
Jewelers

TRAINING THE LIONS.

The Fellow That Roars as a Bluff Is the One Easiest to Teach.

A GREEN EYE MEANS DANGER. Eow the Professional Goes at It to Put Up

One of His Tricks.

COLONEL BOONE'S FIRST EXPERIENCE

[WRITTEN FOR THE DISPATCH.] "No, everyone cannot be a lion-tamer, neither can every lion be tamed." Colonel Boone-big Colonel Daniel Boone, once of the Confederate army, for many years superintendent of the national zoological gardens of Peru, and at one time mili-

talking to me about lion taming. He had just finished an exhibition with his own trained beasts in the theater near by. In one corner of the round performing cage the five great cats had slept until the Colonel's step upon the floor wakened them -slept much as house cats sleep, rolled together gracefully, their paws intertwining and their heads thrown backward for

At the word of command the lions roused themselves and after a glance at their mas-ter sprang to their feet, crowding upon each other's heels in their frightened haste to escape from their sleeping pen into the performing ring.

The Tricks That Are Popular.

Then they went through their tricks while the band played, and the audience kept very still. Only once did the people ap-plaud and that was when the trainer's assistant drew her head from the mouth of the ugly, snarling lioness. But all was quickly stilled when the Colonel threw imself full length upon the floor and rolled and played with the biggest of the lions as



In the Lion's Mouth. though he had been a schoolboy and the lion a dog. Had one of the brutes chosen at that moment to vent the rage that he really feels against his master in one quick blow of his great paw—but he didn't.

"I knew he wouldn't when I laid down," said the trainer afterward, "otherwise I and then I escape."
should never have inin down. I can tell, of course, whether it is safe to begin my performance or not. There are results of the safe to distract "What is the earlier of the safe to begin my performance or not." There are results of the safe to distract "What is the earlier of the safe to begin my performance or not." formance or not. There are ways of know-ing—I shall tell you later on. There was once, though, when I went through a per-formance without that knowledge. It was

shortly after the close of the war. I was living in Lynchburg, Va., with my folks and was trying to repair the family estate by dealing in tobacco. There came Costhe village hotel, I met him and someone asked me if I was afraid of tigers. I said that I was not.

This talk led to a foolish wager that on the next day, which was Sunday, I should go into the tigers' den. The Deed of a Dare Devil.

"The next morning I met my friends and they asked me whether I was going to go into the cage. 'Of course,' I said, but I really had forgotten all about it. We picked up Herr Engel somewhere and went down to the barn where the cages were stored over night preparatory to moving to

"'You're not going into that cage,' said one man. 'You had better look pleasant and pay your bet.' "I said that I would follow the trainer, and follow him I did. He first put on a big and follow him I did. He first put on a big linen duster, and taking his whip he sprang through the door and put the brutes through their paces. When he came out I put on the duster, took the whip and leaped into cage like a whirlwind I yelled at the frightened tigats, best them.

frightened tigers, beat them right and left and sent them cowering into their corners. The trainer and my triends stood around dumb with amazement.
"'Give me the hoop,' I called out. 'I'll go through the whole show."
"You'll come out at once—that's what
you'll do!" shouted Engel. "You've risked

enough for one day." "I was not angry. I went out like a shot, and for the first time in five minutes my heart dropped down into its proper place.



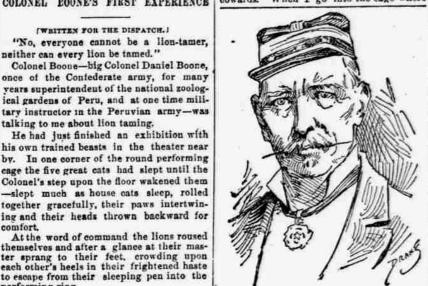
On a Tricycle. When I reached the ground I asked Engel why he wore the duster. He laughed and said that I would have been just as safe without it. He had put it on simply because he wore his best suit of clothes, and did not want to get them soiled. A few weeks later Engel was bitten by one of his pets, and the circus men sent for me to take

nis place. Courage Not All That's Needed. "That is the way I became an animal trainer. I have been in the business here, in South America, Europe and Africa ever since. It doesn't take courage alone. Take, for instance, my man Carl, who has been with Hagenbeck in Hamburg since he was baby and I have had him 15 years. He can do everything with my lions, but make them perform. He sweeps out their cage half a dozen times a day and he feeds them and caresses them. They will run away from him and come to him, but they would not act for him. A man must have a peculiar knack which I cannot explain to

make him a trainer.
"Then only one lion out of three can be trained. You can't make an acrobat out of every boy who goes into a gymnasium, can you? I have caught some lions in Algier, but all that I have now I bought. Most of them came from the Great Eastern Show that went to pieces at Cincinnati. None of the brutes were tamed even, and they were all strangers to me. I had only a short time to make my selection, but I didn't require all of that. It is easier to pick out a lion that can be tamed than a man who can be taught a trade. I walk up to the cage where Mr. Lion sits. I hit the Two Shops Turn Out All the Boys

bars with my whip and make pretence of putting my hand between them. Does'nt Like a Treacherous Lion.

"If the lion throws himself against the irons with a great spring and roar, I know that he is all right. If he sulks in one corner or comes up to the bars quietly like a cat coming upon a mouse, I do not want him. The noisy lion is a bluffer. He makes his bloff when he makes his spring. The quiet lion is treacherous. All lions are cowards. When I go into the cage where UNIQUE FORMS TO PLEASE THE EYE



Colonel Daniel Boone.

my noisy lion is and fire off a few blank cartridges from my revolver and beat him a few times over his nose with my whip he growls, dances and then slinks away saying to himself: "What on earth does all this mean? I

thought that I had that man scared to death. I guess that I ain't so frightening as I thought I was.
"The bluffer can be tamed sufficiently to let me go into the cage without danger in a week's time, but there is never any safety with a sneak-lion. Another thing. The

lion must be not over two years old and he must be straight-backed and strong. A weak lion breaks down very quickly during training. Such a brute is worth from \$1,000 to \$1,500 untrained. When he is trained he is worth from \$3,000 to \$5,000, and sometimes more. It takes several years to train lions perfectly. The first step is to show them that I am the master. Next I teach them that I do not intend to hurt them unless they disobey me. I begin caressing them with the end of my whip and I do it gently. It is not safe to ven-ture with your hand at first. After this, which takes weeks, and even months some-times, I teach them to take food from my

When a Lion's Eyes Get Green

"When a lion disobeys I punish him, but I do it with judgment. There is a point beyond which it is dangerous to go. My left arm has no muscles from the elbow up. I whipped a lion one bow too many in Quito, Chili. If his teeth had not been worn with age I would not be alive to-day. When a lion crouches down, and his eyes turn green, and his tail stops waving from side to side and merely wiggles at the end like the rattles on a rattler, look out. I stop then and give him a chance to quiet down. Some-times I call assistance or do anything that I can do to distract his attention from me,

"What is the easiest trick to teach a "After getting him to come to me at ommand, to make him lie down. You can't throw a lion on his side with your hands as you would throw a dog in training it. After this, mounting a chair or pedestal is the easiest. But all this takes m daily work-patient work. Never give up; that is the lion's trainer's motto. In making a lion mount a chair I generally course of time I induce him to put both

forepaws on the chair. Now comes the struggle. He does not want to put up his hind feet. I force him to do this by tapping them with my whip until he hops up to avoid punishment. When he has once learned what I want him to do I have little trouble with him. But all this takes time."
"I suppose the hardest trick is putting

your head in the lion's mouth?" Your Head in a Lion's Mouth. "On the contrary, it is one of the easiest and safest. I hold the mouth open with both hands, and I can feel the least attempt to bring the jaws together with my fingers. This gives me a chance to withdraw my head in time. It is well, however, to know

your beast pretty thoroughly before trying "After I have once taught a lion a trick he never forgets it, and each time he does it easier than before. The hardest trick is to drive a lion in a charlot. I have some times worked for years to teach that.
After I have the harness adjusted, which takes months, I jump into the chariot and trust to Providence. The lion dashes away like the wind and never stops until he s winded. It's a lively race, I tell you, and must be repeated hundreds of times and must be repeated hundreds of times before I can rely on the steed to submit to a public exhibition. Another hard trick is the see-saw. I worked for a year before I taught Parnell to crawl backward up the plank and allow himself to be joited up

"How about taming a lion by looking into his eyes?"
"You might as well tame him by fixing your eyes on his tail. I look in my lion's eyes to see what the expression may be. There is where I find the danger signal. If the signal says 'go ahead' then I can turn my back on Mr. Lion and go ahead safely. I never turn my back on him, however, within reach of his paws outside of the bars. Inside the cage I am master, out if I turn

my back when I am outside and am within reach I court instant death. "Tigers are more manageable than lions when once they are trained, but they are harder to train and make less spirited per-formers. One of the most interesting tricks my lions do is to ride upon a tricycle which is made expressly for the purpose. After I have once trained a lion to stand on it in position to ride he cannot help going for-ward very well. The tricyle is slowly pushed at first and then one treadle goes up while the other goes down. The lion instinctively pushes down on it and that sends the other treadle up. He keeps on pushing on the uppermost one and by thus doing keeps the wheels in motion. BENJAMIN NORTHROP.

ADVERTISING IN THE SKY.

The Vaulted Blue Can Now Be Used by Enterprising Tradesmen. Philadelphia Telegraph.]

The newest horror is not Deeming nor the Paris Anarchists. It is considerably worse than either. An esteemed scientific cotemporary says that genuine sky-signs can now be installed for the enterprising advertiser. By a simple arrangement of mirrors, reflecting glasses, and lights, a sort of gigantic magic lantern can be set up, by which images can be thrown upon the clouds. You will be able to advertise your wares, in etters 100 feet long, on the skies, so that they will be visible over a dozen counties. As if this truly awful prospect were not enough, we are told that these sky signs can be made luminous, so that they will blaze all night! Heine, in one of his rhapsodies, said that he would like to snatch a burning pine from its Norway mountains and write with it the name of "Agnes" in letters of fire on the skies. But he would probably not have cared to adorn the firmament with a blazing description of somebody's patent rouser stretcher, or a glowing picture of a lady wearing the latest thing in hygienic

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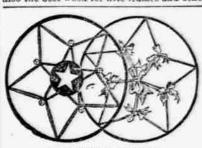
Eending Into Shape.

[WRITTEN FOR THE DISPATCH.] The youngest clerk in any big wholesale toy store knows that "hooples" mean rolling hoops. How they came to be called hooples in the toy trade is more than I can tell you. Even Father Johnson, at one time the largest manufacturer of hooples in America, could not give me a reason.

"They have always been called hooples by the trade," he said to me, "but never by the boys and girls who roll them. When I was a youngster we always called them rolling hoops as the children do to-day."

Ten years ago there were about 3,000 gross, or 432,000 rolling hoops, made in this country. Last year the same number were sent to market, no more and no less. The hoopmaking industry has not keep pace with the increase in population, because of the popularity of the tricycle, bicycle and other rival toys. Boys would rather ride a wheel than zoll one. So, to-day, 65 men in two factories, one in New England and one in New York State, make the half million hoops that are sent out annually. The two factories are in small towns where there is good water power and plenty of hardwood timber. Their labor is cheap and the materials are found directly at their doors. Mr. Johnson once had a large hoople factory in New York City, but he was forced to abandon that line of business because he could not compete with the country manufacturers.

The Hoops Ars Made by Hand, With the exception of the sawing the work in making hoops is done by hand. The best wood is the American ash, which is also the best wood for kite frames and other



Some of the Fancy Hoops.

toys requiring lightness and strength combined. The next best woods are the oak, chestnut and a species of basswood called whitewood by the manufacturers. The ash hoop costs more money than the other kinds, and is worth it, as it really outlasts two made out of inferior woods. Great care is taken in selecting logs for the hoople factories. They must be from trees of second growth, straight and free from knots. The logs are hauled to the mills in the fall

and early winter. The hoon-making season begins in December and ends in May. The largest hoops sold are 48 inches in diameter. The smallest ordinary size is 23 inches. There are intermediate sizes all the way from one limit to the other. When the logs have been selected they are sawed into boards half an inch thick. This is a little thicker than the hoops, to allow for planing. These boards are then sawed into proper lengths, which are 8 inches longer than the hoops, to allow the ends to be lapped one over the other at their juncture. The boards are put on a table from the top of which protrude the sharp edges of 6, 8, 10 or 12 circular saws which are set half an meh apart. Over these the boards are run. They go in whole and come out amid a shower of sawdust in clean, smooth sticks ust half an inch square. After this they are planed flat and smooth and the ends are tapered down to a fine edge so that when they are joined together there will be no

lump to prevent their rolling smoothly. Steaming the Sticks for Bending. Now they are ready for the steam boxes. The steam boxes are long closets made either of wood or iron. Steam pipes empty into each end of them. The stender strips are piled in and the steam is turned on. In this Russian bath, so to speak, the wood is kept from one to three hours, depending upon its age and quality. The older the wood is the more steaming it needs. When it has become softened and pliant the steam s turned off and the workmen take out the sticks one by one and shape them over the "forms." These forms are wooden cylinders about 2 feet long and varying from 22 to 48 inches in diameter. For every size of hoop there is a separate form. The work-man fastens one end of a stick in a clamp on top of the form and winds the stick around the cylinder until the other end joins the clamped one. Then he takes a tack from between his lips, the hoopmaker's tack box,

and nails the ends firmly together. He then slips it off of the form and the hoop is put away to dry.

Most of the painted hoops are merely dipped in vats of paint, and then hung up to dry. The higher-priced or "tancy" hoops are painted by hand with a brush. The sim-plest of all the "fancy" hoops is called the "plain chime." Along the inside of the rim four to eight sleighbelts are fastened, at equal distance apart. When this hoop is rolled the bells give out a tuneful jingle

hich gives pleasure to the ear.

Some of the Fancy Designs. The chime hoop with a handle is an altodifferent affair. The hoop has pokes like a wheel and through the axis there is a bolt to which a handle is attached. This hoop is pushed like a one-wheeled baby carriage. The handle is hand-made and painted. The spokes are brightly colored and the bells are set into the handle instead of being in the hoop itself. These hoops are made in a variety of styles. One of the prettiest has four wire spokes, on each side which there are two pretty spools with lit-tle tin washers between them. As the wheel revolves these spools slide from one end of their spokes to the other, while the

tin jingles merrify.

A rolling hoop of real beauty is the "star chime." The hoop is made precisely the same as the ordinary kind. The only different conductions of calculations of the conduction of the conduct ference consists of a series of colored cords which are rigged from the inner edge of the boop so that they can form a five-pointed star in the center. The middle of the star is a piece of wood, star-shaped, and gayly painted. Sleigh bells are fastened in the cord at the points of the star, and when this hoop is rolled it is the loudest and most

musical of all. Little girls who like pretty things often use ribbons instead of cord and make stars and other designs inside their hoops, with fluttering bows at the center and at the

crossings of the ribbons.
In the way of games with hoops, Amer ean boys and girls are far behind the French. In this country these sports are French. confined almost wholly to simple trundling and an occasional race. JAMES NORTON

Rattroad Popularity in Japan.

Spare Momenta. ] Japan bids fair to rival Great Britain in railway popularity, for although railways have been only very recently introduced there the proportion of passengers to mileage is very high. When the railway from Yokohama to Tokio, 18 miles long, was opened in 1872, there were carried the following year on that line 1,223,071 persons, and 2,172,105 in 1884. There are 1,128 miles of railway in Japan, and according to the last annual return,

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traveled on them in the course of 12 months.