

**Grass and Roses.**  
I looked where the roses were blowing;  
They stood among grasses and weeds;  
I said, "Where such beauties are growing,  
Why suffer these pretty weeds?"  
Weeping the poor things filtered,  
"We have neither beauty nor bloom;  
We are but grass in the rose's garden—  
But our Master gives us this room."  
"The slaves of a generous Master,  
Born from a world above,  
We came to this place in His wisdom—  
We stay to this hour from His love."  
"We have fed His humble creatures,  
We have served Him truly and long;  
He gave no grace to our features—  
We have neither color nor song."  
"Yet He who has made the roses,  
Placed us on the same soil as he;  
He knows our reason for being,  
We are grass in the garden of God."  
—Rev. James Freeman Clarke.

## A CAPE HORN INCIDENT.

BY W. CLARK BISSILL.

On a December morning, in the year 1881, a mail steamer, homeward bound from a New Zealand port, was approaching the meridian of the Horn, but on a parallel more southerly than it is now the custom of steamships to take in rounding that stormy, ice-girt, desolate and most inhospitable of all headlands.

December in those distant regions is midsummer, and the weather of that morning was as fair and still as a breezeless April day in this country; but the swell of the vast track of ocean ran ceaselessly, reminiscent respirations of a giant whose conflict with the heavens is eternal, and whose breaking panes are very few and far between indeed. Over this long, dark blue, water-veiled swell the long metal fabric went sweeping in long, floating, lurching curves, whitening the water astern of her with a mile of milky-white wake. The frothy sun, whose beams in that sea have some-thing of the silvery brilliance of the electric light, flashed a score of con-siderations out of the gilt and glass and brass about the steamer's bows and quarters and decks. A number of passengers were pacing the long hur-ricane platform. Far away on the starboard beam, poised, star-like, upon the keen blue rim of the ocean, was an iceberg—a dash of crystalline light against the airy sky that out there, low down, were the delicate tulle of the opal. Otherwise the ocean swept naked to its confines, a plain of rich, deep blue, with the heave of the swell shouldering the morning glory under the sun as it ran, and making that part of the deep magnif-icent with flowing light.

The chief officer was on the bridge; the first breakfast-bell had rung, and the captain, smart as a naval officer, in buttons and lace trimmings, quitted the chart-room and joined the mate to take a look around before going be-low. The skipper was a man of eagle sight, and instantly on directing his eyes over the ship's bows he ex-claimed:

"What is that black object yonder?"  
The chief mate peered, and the cap-tain leveled a telescope.  
"A ship's boat," said he, "and seem-ingly full of people."  
The boat, when sighted, was some three or four miles distant, and the speed of the steamer was about thirty knots. In a few minutes the alarm in the engine-room rang its re-verberatory warning, sending a little thrill of wonder throughout the ship, so rarely is that telegraph handled on the high seas.

"Eighty-eight men, sir," cried the chief mate. With a binocular glass at his eye.  
Again the engine-room alarm rang out; the pulsing that for days had been ceaselessly throbbing through the long fabric, languished, and in a few minutes, to the astonishment of the metal tongue below, ceased, and the great steamer floated along to her own impetus, slowly, and yet more slowly, till the boat was within the toss of a biscuit off the bow, with the pas-sengers crowding to the side to look, and sailors and waiters and stowage folk blackening the rail forward.

The occupants of the boat consisted of eight wild, hairy, veritable "saw-crows" of men, dressed in shivers fashions—Scott caps, yellow sun-vesters, sea-boots, toll worn monkey-jackets, and the like.  
"Boat ahoy!" hailed the captain, as she slowly washed alongside. "What is wrong with you?"  
A fellow, standing up in the stern sheets, cried back.

"For God's sake, sir, take us aboard! Our water's almost given out, and there's nothing left to eat."  
"Look out for the end of a line," bawled the captain. "Are you strong enough to get aboard without help?"  
"Ay, sir, we'll manage it."

A rope was thrown, and one after another the fellows came swinging and scraping and scrambling up the clean

side of the steamer. The passengers crowded round and gazed at them with curiosity and pity. Their sympathetic eyes seemed to find famine painfully expressed in the leathern countenances that stared back through matted hair.

"We must let your boat go," said the captain.  
"Can't help it, sir, thankful enough to be here, I reckon," answered the fellow who had called from the stern sheets, and who acted as spokesman.

"Anything belonging to you to come out after?"  
"Nothing. Let her go, sir. If sailors' sea-blessings can freight a craft she ain't going to float long."

The boat was sent adrift, the engine bell rang out, once more the great mail steamer was thrashing over the long, tall heave of the Cape Horn swell.

"How came you into this mess?" inquired the captain.

The man who had before spoken gave answer:  
"We're all that's left of the crew of the Boston bark 'George Washington.' She was a whaler, a hundred and forty days out. It were four days ago, I was the first to smell fire some while after two o'clock in the middle watch."

"I wanted ten minutes to six bells," explained a man, and a general, em-phatic, hairy nod followed the inter-ruption.  
"I was the first to smell fire," con-tinued the other, "and it what hour ye like. I gave the alarm, and all hands turned to with hoses and buckets. But there was a deal of oil in the hold, and the ship's planks were thick with grease besides, and that gave us no chance. By ten o'clock in the morning the flames had burst through, and was shooting up most high, and then we calculated it was time to look to the boats."

The others stood listening with hard, stolid, leathery faces, generally gazing with steadfast eyes at the speaker, but sometimes glancing askance at the cap-tain and the crowd of others which stood round.

"There was an ugly sea running," the man went on, "and the wheel being disarranged, the ship had fallen off and ran in the trough, and the lower-ing of the stern boats, when men thought they was who had the handling of 'em, cost our company of twenty-eight souls the loss of all hands saying them as stand afore ye."

"A bad job! a mean, cruel, bad job!" he broke in a long-jawed man, whose brow and eyes were almost con-cealed by a quantity of coarse red hair.

"Well, no right men got away in the boat," proceeded the spokesman. "Being along with us nothing but a small bag of bread and about six gal-lons of fresh water. We've been a-watching about since Tuesday, and now the Lord be praised, here we be with a chance of getting something to eat, and what's more pleasurable still to our feelings, the opportunity of comfortably turning in."

A murmur of pity rang among the passengers, several of whom were ladies, and there was more than one somewhat loud whisper to the effect that the poor creatures forward at once to get some breakfast, instead of holding them, starving and dy with thirst, in talk. The eagle-eyed skipper, how-ever, asked several questions before dismissing them.

"Since by their own confession the fire gave them plenty of time to escape from the bark, how was it they left her so ill-provisioned as they repre-sented?"  
This was most satisfactorily account-ed for. Other inquiries of a like na-ture were responded to with alacrity and intelligence.

Every sentence that one or other of them let fall was corroborated by the rest. Their tale of suffer-ing, indeed, in the open boat was al-most harrowing; and the captain with the first note of sympathy that his voice had taken, ordered them to go forward, adding, that after a good hot meal had been served them they might turn in and sleep for the rest of the day wherever they could make a bed.

At the breakfast in the saloon no-thing was talked about but the whaler that had been consumed by fire, the dreadful drowning of some two-thirds of her crew, and the miraculous de-liverance of the survivors from the in-expressible perils and horrors of an open boat in the solitude of the stormy east part of the ocean the wide world over. A benevolent gentleman pro-posed a subscription. Before the lunch-bell was rung a sum of thirty pounds had been collected. The incident was a break in the monotony; and when the eight men re-appeared on deck dur-ing the afternoon they were promptly approached by the passengers, who

obliged them to re-tell again, and yet again their melancholy story of mar-time disaster.

On the morning of the third day, following the date of this rescue, a ship was sighted almost directly in a line with the vessel's course. As she was nearer she was seen to be rigged with stumps, or Cape Horn top-gallant masts; she was also under very easy canvas which gave her a short-handed look in that quiet sea. Great wooden davits overhung her sides, from which dangled a number of boats. She pre-sented a very grimy, worn aspect, and had manifestly kept the sea for some months. It was observed by the chief officer, standing on the bridge of the steamer, that the eight rescued men, who were looking at the sea ahead along with some of the crew and stowage passengers, exhibited several symptoms of meanness and even of agitation. Suddenly the stripes and stars, with the stars inverted, were run aloft to the peak-end—a signal of distress! The engines were "slowed," and the steamer's head put so as to pass the vessel within easy hailing distance. A man aboard the bark stood in the mizen rigging.

"Steamer ahoy!" he roared through his nose.  
"Hullo!"  
"I have lost a boat and eight of my men. Have you seen anything of her?"

The captain, who had gained the bridge, lifted his hand.  
"Bark ahoy!" he cried; "what bark is that?"

"The 'George Washington,' whaler, of Boston, a hundred-and-eighty-four days out."

The captain of the steamer com-manded a sour grin.  
"How came you to lose your boat and the men?"

"They stole her one middle watch and sneaked away from the ship."

The captain of the steamer uttered a laugh.  
"We have your men safe here," he shouted. "That to learn that you are not burnt down to the water's edge, and that three of your crew look back considering that they are drowned men. Send a boat and you shall have your sailors."

Twenty minutes later the eight whalers were being conveyed to their bark in one of their own boats, most of them grinning as they looked up at the line of heads which decorated the steam-er's sides; and, indeed, there was some excuse for the smiles, for among them they were carrying away the thirty pounds which had been sub-scribed for them. It would be inter-esting to know what their skipper said when he learned that they had lost a fine boat for him; but ocean mail lines have to keep time, and the steamer could not wait to send a representative on board the whaler to report the many elegancies of sea-dialect which we may reasonably assume embellished her skipper's rhetoric.—New York Independent.

**Coffee as a Disinfectant.**  
An old colored man living in a dis-trict where the disease often prevailed once told the writer that one of the best preventive measures against yel-low fever was infusion of coffee.

Some years ago he passed through an epidemic of that grave, malady under the worst possible conditions. For at least a month he occupied the quarters of a large number of sufferers, pass-ing night and day among them, eating and sleeping in their midst.

Recalling the homely advice given him he faithfully tried coffee as an an-tiseptic and drank freely of it, as a strong infusion five or six times a day, and I continued the practice all the time he was under exposure. He was for-tunate enough to escape contagion, but never attached much importance to the use of the coffee. Considering the results of recent developments, it would seem that the old negro was right in attributing antiseptic prop-erties to it.

A series of experiments conducted by a German professor has proved that they are quite marked. Several differ-ent forms of intestinal bacteria were exposed upon, and their develop-ment and growth were found in all cases to be interfered with by the ad-dition of a small quantity of coffee in-fusion to nutrient gelatine. In pure infusion the bacteria were rapidly de-stroyed.

The question as to what constituents exercise the antiseptic effect cannot yet be fully determined. The caffeine is certainly active in only a slight degree; the tannin to a somewhat greater ex-tent; but, presumably, of greatest im-portance are the substances that are de-veloped by roasting. It is interest-ing to note that a cup of coffee, left in a room for a week or more, remains almost free from micro-organisms.

## CHILDREN'S COLUMN.

A SAMSON AMONG INSECTS.

The comment of beetles is in pro-portion to its size six times stronger than the horse, and an eminent natu-ralist tells us that if the elephant were as strong for its size as a stag-beetle is, it would be able to tear up the stoutest trees and knock down moun-tains.

A TALKING CANARY.

A rare curiosity is owned here, by Miss Ida Calvin, in the possession of a Hartz mountain canary which talks. It was brought to its present home at about the time a young parrot was purchased. The two birds have been in their respective cages, side by side, always, and while the parrot has caught some of the singing notes of the canary, the latter has learned to enunciate plainly from its fatherly friend. It has learned thus far only two sentences, which are "Sweet little Ducky bird!" and "Oh, poor little!" but they are spoken with startling dis-tinctness and proper intonation.—[Providence (R. I.) Journal.

WARRIORS' SPINNERS.

A spider has four little bags of thread, each little bag! In every big there are more than a thousand holes, such tiny, tiny holes! Out of each hole thread runs, and all the threads—more than four thousand she spins together as they run, and when they are all spun they make but one thread of the web she weaves. There is a member of the family that is herself no bigger than a grain of sand. Imagine what a slender web she makes, and of that, too, each thread is made of four or five thousand threads that have passed out of her four bags through four or five thousand of the tiniest holes. What must our very finest lace look like to one of these marvelous spinners?—[Detroit Free Press.

AN ELEPHANT REMEMBERS A FRIEND.

An elephant attached to Womwell's menagerie was treated in Gloucester-shire, England, by a druggist for in-ternal spasm. The animal recovered and duly departed from the town. This was in 1870. But in 1879, when the druggist stood at his shop door to watch the menagerie again enter the town, the elephant crossed the street, advanced to the man of drugs, placed his trunk in his hand and grunted agreeably to show his remembrance of past kindness. At night in visiting the menagerie the elephant drew the druggist's attention to her side, to which a blister had been applied nine years before. In 1881 the elephant again entered the town. Recognizing her chemist friend in the audience, she lifted him gently off his feet by means of her trunk and drew his atten-tion to one of her forelegs. The keeper explained that the limb had been lamed by a veterinary surgeon and that apparently she was comparing notes of the difference between the gentler blister of her friend and the procedure of the surgeon. It is not often that services are so long and gratefully remembered either by quad-rupeds or "the paragon of animals" himself.

THE FLYING SQUIRREL.

The flying squirrel differs from com-mon squirrels principally in the expan-sion of the skin between the fore and hind feet, by means of which the animal sails in a descending line, sup-ported as by a parachute. The com-mon flying squirrel is about ten inches long, of which one-half is the tail; the color above is light yellowish-brown, the tail being rather smoke-colored and white beneath; the fur, as in all the species, is very fine. It is a nocturnal animal, rarely appearing af-ter sunset, at which time its gambols and graceful flights may be often seen in places frequented by it; the large eyes indicate its habits. It is harmless and gentle, and soon becomes tame, eating the usual food of squirrels. There is nothing resembling the act of flying in its movements, as seen in the flying fish. It sails from a high to a lower point, a distance of 40 or 50 feet, and when it wishes to alight the impetus of its course enables it to ascend in a curved line to about half the height from which it descended, running quickly to the top of the tree, it descends in a similar manner, and will thus travel a quarter of a mile in the woods in a few minutes without touching the ground. Flying squirrels are gregari-ous, six or seven being found in a nest; the food consists of nuts and seeds, buds and even meat and young birds. They produce from three to six young at a birth, and have two litters in the southern states—in May and September. This species extends from upper Canada and northern New York to the extreme southern limits of the United States.—[Pleasure.

## A DARING FEAT.

A LAD'S ADVENTURE WHILE ROBBING AN EAGLE'S NEST.

Battling With Infuriated Birds on a Lofly Crag.

Lee Hemingway, an orphan boy of sixteen years of age of New Braun-fels, Tex., had an adventure a few days ago with two American eagles, in which he barely escaped with his life. Professor McInery, the well-known naturalist, who has been located in that neighborhood for the last few weeks in the interest of his ornitholog-ical collection, offered Lee \$50 for a nest with living eagles or eggs in it. Although rather early for these birds to hatch their young, Lee was soon able, by watching the movements of a pair, to find where a nest had been made. But as it was on the summit of the Big Injun, an almost unmount-able, boulder rising nearly 125 feet in the valley of the Guadalupe, there was no way of securing it except by scaling the sides of the rock, which, however, his in the course of time be-came coated by several feet of earth, and are covered with a tangle of vines, &c.

It was a daring feat, but young Hemingway was plucky lad of a stal-wart build, and who, dependent on his own exertions for a livelihood, had the money offered a big consid-eration, and agreed to attempt the feat on condition that the Professor would keep watch with a gun for the return of the parent birds. With a basket furnished with a lid slung to his back in which to secure the eggs or young eagles, he managed, by climb-ing, scrambling and pulling himself up hand over hand, to reach the top of the Big Injun, where he found the nest, as he had expected, with young birds a day or two old. Wearing out with his exertions he rested for some time, then placing the nest with its contents in his basket and strap-ping it to him, he began to descend.

He had scarcely accomplished fifty feet of this when he heard the report of the Professor's gun, and saw the two eagles returning. Unhappily, they paid no attention to the shot, but after sighting and finding the nest gone, made at the boy with out-redded wings and hoarse cries of fury. Ducking his head to keep their power-ful beaks and claws out of his eyes, Lee attempted to beat them off with one arm while he clung to the vines with the other, but they struck at him repeatedly on the head with their beaks, each time bringing the blood, which flowed into the boy's eyes, and nearly blinded him, while they buffet-ed him unmercifully with their great wings.

Prof. McInery waited until one of the birds was far enough from Lee for him to take aim without danger of hitting him, then fired, and succeeded in killing the eagle. She, for, as was afterward ascertained, he had shot the female. Left into a small tree, or what was scarcely more than a large sapling, which had sprouted from a good-sized crevice in the rock, about eight feet above where Lee hung, and seeing her suspended just above him gave the boy an idea to which he owes his life. With a strength of despair he drew himself up to the tree by the sense of touch alone, for his eyes were full of blood. Once there he braced himself with his feet, and, wiping his face, he held his handkerchief about his brow in order that it might absorb the blood. He then caught the dead bird by the feet, and with this weapon, he turned on the living eagle, which had never ceased to beat and strike him. At the next sweep Lee struck it as hard as he could dare, not to endanger his pos-sition, and continued to meet its attacks in the same way until, rendered fur-iously and incautious by its enemy's re-sistance, it flew directly in his face, with claws extended and beak striking right and left. The boy caught it with both hands about its throat, and with all his strength held it, in spite of the furious beatings of its wings, until, choked to death by his grip, the great bird hung lifeless, when he dropped it at the Professor's feet.

This gentleman had watched the desperate struggle, unable to help the boy, except by random shots, hoping thus to frighten the bird away, which, however, as has been said, he failed to do. Young Hemingway hung in the slender branches of the little tree for nearly an hour, battling exhausted nature now with the same courage he had displayed toward the eagles.

Speaking of his adventure, he says: "I felt as if I was going to faint, and I knew if I did I would be killed by the fall, and I hadn't fought those plumed birds so hard to give up to any such womanly doings as that, so I just kept fighting against that awful

sinking, and pretty soon I got over it so when I rested I climbed down."

But just as he reached the foot of the rock the strength born of desper-ation gave way, and the brave boy fell senseless into the Professor's arms. He was fearfully torn in the head and face, but the former wounds are for-tunately only skin deep, and with the exception of one long, deep gash in the cheek, just below the eye, which is healing slowly, his face is nearly well. He is obliged, however, to keep his head yet, so bruised and sore is he from the buffeting he received. Remarkable as it may seem, the young birds in Lee's basket were living and uninjured by the fearful journey they had made. The Professor, in consideration of the danger he underwent, and for the two birds not obtained for, has presented Lee with \$100, and the boy is the hero of the hour.—[Columbian Democrat.

A Horse's Sense of Smell.

The horse will leave musty hay un-touched in his bin, however hungry. He will not drink of water objection-able to his questioning snuff, or from a bucket which some odor makes of-fensive, however thirsty. His intelli-gent nostril will widen, quiver and query over the faintest bit of odor, and that would make a mortal shut his eyes and swallow a nauseous mouth-ful at a gulp.

A mare is never satisfied by either sight or whiffy that a colic is really her own, until she has a certified nasal certificate to the fact. A blind horse, now living, will not allow the ap-proach of any stranger without show-ing signs of anger not safely to be dis-regarded. The distinction is evident-ly made by his sense of smell, and at a considerable distance. Blind horses, as a rule, will gallop wildly about a pasture without striking the surround-ing fence. The sense of smell informs them of its proximity, others will, when loosened from the stable, go di-rectly to the gate or barn opened to their accustomed feeding grounds, and when desiring to return, after hours of careless wandering, will distinguish one outlet and patiently await its open-ing. The odor of that particular part of the fence is their pilot to it.

The horse in browsing, or while gathering herbage with its lips, is guided in its choice of proper food instin-tively by its nostrils. Blind horses do not make mistakes in their diet. In the temple of Olympus a bronze horse was exhibited, at the sight of which six real horses experienced the most violent emotions. Aelian judiciously observes that the most perfect art could not imitate nature sufficiently well to produce so strong an illusion. Like Pnyx and Pausanias, he consequently affirms that in casting the statue a magician had thrown Hippocampus upon it," which by the odor of the plant deceived the horses; and then we have the secret of the miracle. The scent alone of a buffalo robe will cause many horses to exhibit lively terror, and the clearing scent of a railroad train will frighten some long after the locomotive is out of sight and hearing.—[House and Stable.

Quinine Intoxication.

Dr. Lewis A. Sayre of New York says that there are many cases on record where a use of quinine has caused a disarrangement of the mental powers, and to such an extent that the sufferer did not know what he or she was about. Instances are not few where patients who were given large doses of the drug became delirious. These symptoms, however, passed away when the use of quinine was discon-tinued. It is possible while under its influence for one to act as irresponsibly as when in liquor. That quinine affects the brain is evident from the fact that an overdose will cause severe buzzing in the ears and often tempo-rary deafness.

Physicians cannot be too careful in prescribing quinine, for what is one man's meat is another man's poison. I have known one quinine to have more effect on some patients than fifteen grains on others. The same can be said of morphine. Two grains of this drug will cause many intense itching sensations, with pinched tongue and throat. On the other hand, I have known patients, even those used to morphine, to take much larger doses without showing any evil effects. There is a little doubt but there are quinine habits as well as slaves to chloral, morphine and other narcotics and drugs, yet its use as a stimulant has not become general.

Logical Reasoning.

Teacher—Who was the richest man of ancient times?  
Pupils—Credly Fangle—Methuselah, Ma'am.  
What?  
Yes, he had more time than anyone else, and time is money, you know.—[Epoch.

No Show.

Joe had 'ud set upon a keg.  
Down to the grocer's he 'ud throw  
One bag right over his leg.  
An' swear he'd never had no show,  
"Oh, no," said Joe.  
"You had no show?"  
Then shift his hand to 'other jaw,  
An' show, an' show, an' show, an' show.  
He said he got no start in life,  
Didn't get no money from his die,  
The washin' took in by his wife,  
Earned all the funds he ever had;  
"Oh, no," said Joe.  
"Hain't lost no show."  
An' then he'd look up in the clock,  
An' talk, an' talk, an' talk, an' talk.  
"I've waited twenty years, let's see—  
Yes, twenty-four, an' never struck,  
Aldrie! I've set round patiently,  
The fat tarantula streaker 'ud lick.  
Oh, no," said Joe.  
"Hain't lost no show."  
Then stick his hand to the spot,  
An' set, an' set, an' set, an' set.  
"I've come down regular ever day  
For twenty years to Piper's store;  
I've set here in a patient way,  
Say, hain't I, Piper?" Piper swore,  
"I tell ye, Joe."  
"You hain't no show."  
"You hain't no show," they both said,  
Just hain't no show, an' hain't no show, an' hain't.  
—M. Foss, in Yankee Blade.

HI MOROUS.

Fatal fall—unhealthily autumn.  
Every man has a lot in life and a gut for it.

Extraordinary phenomenon in na-ture—a feat of arms!

"Care is going up," as the aeronaut said when he cut the balloon rope.

There are some men to whom a loss of their reputation means mighty good luck.

A city police sergeant is to be tried for being drunk. He should have ar-rested his appetite.

Squimps—How's the new baby? Jenkins—How is he?—He's a howling success, and don't you forget it!

Extinguished—How pale the moon is, Louis.—"Yes, love," it has been up until quite late for several nights."

There is something annoying about a glass eye. The man wearing it may know it's a fraud and still he can't see through the fraud.

Squiggs: "I never see you and Miss Mary Ann out together any more. Have you quarreled?" Biggs: "No, not exactly. We're married."

"Why, Mr. French, you talk to me half the time as if I were only eight years old."—Well, Miss Newall, you must remember you never told me just how old you are, so I hope you'll par-don me."

Mrs. Artless—Good morning, Mr. Palette. I've but a moment to spare; can you tell me briefly the secret of your art? Artist Palette—Certainly, Madam. You have only to select the right colors and put them on the right spot. Mrs. Artless—Oh, I see. Thank you very much.

How Cablegrams are Transmitted.

With the first long submarine cables great difficulties were encountered in sending through them a current of electricity of sufficient power to record the messages rapidly. The methods for overcoming these difficulties and in use at present are described as follows:

Keys, which, when depressed, trans-mit positive and negative currents, are employed at the sending station in connection with the regulation battery. The current of the battery does not pass directly into the cable, but into a condenser which passes it into the submarine line. This greatly increases the force of the current used, and serves to cut off interfering ground currents. The instrument first em-ployed in receiving cablegrams was a collecting galvanometer. Upon the magnet of this instrument is carried a small curved mirror. A lamp is placed before the mirror and behind a screen in which there is a vertical slit.

Flash and light moving across this slit as the needles moved from left to right, indicated to the trained eye of the operator the letters in the message being transmitted. But this method of recording messages was found to tax the eyesight of the operator severely, a few years work often rendering them almost if not totally blind. Recogniz-ing the fact that there must be some-thing wrong with such a system, in-ventors set about repairing the defect, which resulted in perfecting the syphon galvanometer, which has all but sup-erseded all other receiving devices.

In the syphon receiver the move-ments of the needle are recorded by means of ink spurted from a fine tube. This tube is attached to a coil sus-pended between two fixed magnets, which swings to the right or left as the pulsa-tions pass through it. The syphon galvanometer is a great improvement; is not hard on the eyes and enables the operator to receive much more rapidly than with the old flash receiver.—[St. Louis Republic.