FISHES of the DEEP SEA

by L. HUSSAKOF in the AMERICAN MUSEUM JOURNAL

GIGANTURA CHUNI

SOME DEEP SEA FISH

UP TO the time of the Challenger expedition, very little was known regarding the fish life of the abyssal depths of the sea. Only about 30 species were known. But the wonderful collections brought back by the Challenger' from her four-year cruise (1873-1876) made known the great diversity, the extraordinary and even weirdness of this fish fauna. Several hundred kinds of deep-sea fishes had been collected—some of them dredged from a depth of more than a mile—and it required a huge quarto to describe and picture them. From this volume dates our real knowledge of the fishes of the abyssal deep. The 'Challenger' expedition was indeed, a 'Columbus' voyage in ichthyology, it opened a new chapter in the history of the science.

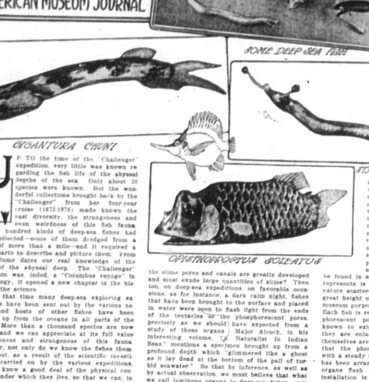
Since that time many deep-sea exploring expeditions have been sent out by the various nations, and hosts of other fishes have been brought up from the ocean in all parts of the world. More than a thousand species are now known, and we can appreciate at its full value the richness and strangeness of this fauna. Moreover, not only do we know the fishes themselves, but, as a result of the scientific investigations carried on by the various expeditions, we now know a good deal of the physical conditions under which they live, so that we can, in a measure at least, explain the why and where-fore of their extraordinary characteristics.

When we think of life in the deep-sea, there come to mind, first of all, the enormous pressure which these creatures must withstand. This pressure becomes the greater the deeper we go down, and in the profoundest depths it equals thousands of pounds to the square inch. The result of this pressure is that the tissues of these fishes are tender and loosely knitted together. When they are brought up out of the dark depths, and the great pressure under which they live is removed, the expansion of the gases within, to them bulges out the eyes, and often blows out the viscera through the mouth, while the skin also collapses, leaving them soft and flabby like moist rags. Most deep-sea fishes are very small size, usually only a few inches in length, and it is probable that this reduction in size has come about, to some extent at least, from the great pressure under which they live.

Another important condition in the dimness of light, or even darkness in the profound depths of the sea. If we imagine ourselves descending into the deep ocean, we see the light grow dimmer and dimmer as we go down, until finally a level is reached beyond which no light penetrates at all. The entire vast depth below this is in eternal darkness. Now the fishes living in this dim light, or in total darkness have been profoundly modified by it. In some forms the eyes have become very small, and in some cases have entirely disappeared. There are even fishes in which the skin and scales of the body have grown over the place where the eyes should be, so that these fishes are as has been aptly said, blind beyond redemption. Other forms, on the other hand have been affected by an entirely different way. The eyes instead of growing smaller, have grown larger, as if in an attempt to catch every flicking ray of light. In some fishes this has been carried so far that the eyes have become like enormous goggles.

Most deep-sea fishes have luminous organs of one kind or another, so that they carry their own light about with them. In some the entire body glimmers, the coating of slime which exudes from the pores and lateral canals, emitting a soft silvery glow. In others rolls of minute luminous organs run along the sides of the body or there are flashing light-spots on the head or face. What a wonderful sight would be to us a small black fish flitting through the gloom and darkness of the deep with its head lights and row of pores gleaming through the darkness like some small ship passing through the night with its portholes all aglow! Some deep-sea fishes have a luminous organ at the end of a feeler on the head.

A pertinent question may be asked: How do we know these fishes glow and glimmer where no human eye has ever beheld them in their abyssal home? We know this partly from analogy and partly from actual observation. When one is in a boat in the tropics, on one of those rainy nights when everything is a dead calm, and the black clouds hang so low that sky and sea form one continuous blackness, then one may see the glimmering fishes darting out of the path of the boat, their forms, silvery and ghost-like, outlined for one moment against the blackness of the sea. This effect is chiefly due to the outlining of the slimy mucous secretion on their bodies. Why shall we not believe then, that in deep-sea fishes a similar phenomenon takes place, particularly as in many of them



OPHTHOMEGA OCELLATUS

the slime pores and canals are greatly developed and most exude large quantities of slime? Then in the deep-sea expeditions dermatic organs, as, for instance, a dark calm night, fishes that have been brought to the surface and placed in water were seen to flash light from the ends of the tentacles of the phosphorescent porea, precisely as we should have expected from a study of these organs. Major Alcock, in his interesting volume, 'A Naturalist in Indian Seas,' mentions a specimen brought up from a profound depth which 'glimmered like a ghost as it lay dead at the bottom of the pail of tepid seawater.' So that by inference, as well as by actual observation, we most believe that what we call luminous organs in deep-sea fishes, emit light into the darkness about them. In the case of fishes totally blind, the absence of light is compensated for by the development of enormous antennaeliike feelers modified from fin rays, so that these fishes can feel their way, as it were, through the darkness.

The absence of light, however, entails another important consequence. As is well known, no plant life can exist in darkness. There is therefore no vegetation of any kind in the profound depths of the sea. The deep-sea fishes are, in consequence, all carnivorous, the more powerful in size seizing and devouring the weaker ones. It is a cold black world where might reigns supreme. Many have enormous mouths and formidable teeth to insure holding the prey. In some forms the teeth are so large that the mouth cannot be shut.

The temperature of the water in the profound depths of the sea, is always low and near the freezing point. This is true everywhere, even at the equator. Fahrenheit has shown that upon the fishes although it is not yet known what is the amount of oxygen dissolved in the water also is much less than in water nearer the surface. The breathing apparatus of the deep-sea fishes is modified to suit their peculiar conditions. The gill filaments have become much reduced in size, and in a number of instances some of the gill arches bear no gill filaments at all. The fishes are apparently adapted to a much smaller oxygen supply than those living in rivers or in the shallow sea.

When we think of the vast diversity among these fishes, the question arises: Are they all representatives of a single family or group that has become specially adapted to life in the deep sea, or do they belong to different families or groups? One need hardly be an ichthyologist to answer this question. Even a cursory examination of the plates in a work on deep-sea fishes will show that different types are represented. In fact, a great many families are included in the deep-sea fauna. There are sharks and rays, salmons, herrings, perches, and representatives of many other families. We can explain this heterogeneous assemblage in this way: We may imagine that fishes of many different kinds in their search, so to speak, for the unoccupied corners of the sea, found a haven in these deep-sea waters where they were free from pursuit by their enemies. In the course of time their migrated farther and farther into the deep, a change in habits taking place part passu with the changes in structure. Having started out with different organizations, and possessing different degrees of variability, they became differentiated in diverse directions, so that while some developed enormous mouths, powerful teeth, or phosphorescent organs, others became fashion-living and parsity or completely lost their eyes. Still others developed long feelers for groping their way through the darkness, and again, however, fishes of separate groups developed similar structures, so that there are many striking cases among deep-sea fishes of what the biologist calls 'convergence' or parallelism.

The museum has recently prepared for exhibition a number of typical deep-sea fishes, arranged in the form of a group. The preparation of this exhibit involved many difficulties, such as the modeling of the fishes in transparent or translucent media, to represent them as glimmering or shining with lit-up 'portholes.' Considerable experimenting was necessary before we were able to produce one as we had just finished causing the market, and I tried to make him understand that he couldn't wait over me, regardless of markets.

Then Jimmy came hobbling along; Denny Paul, who was whistling, to beat the band! He small, frail body of a worry or a care, making the most of today and hoping for the best from tomorrow as he shambled out late that morning.

He might have known that one of us would have to turn out, but he expected me to do it, and I wasn't in a pleasant frame of mind myself, what with a trying headache all afternoon and a fine with the boss. But I didn't propose to get out of somebody's way when I was on the right side and he was wrong.

Well, we couldn't walk through each other, so we just naturally came together, while the big business man

SMILE ALWAYS HAS A VALUE

May Be a Lesson in This for Those Who Think Life Is Hard for Them.

Apparently it had been a bad day for the big, prominent business man, and he must have dealt in wheat just before the two million bushels contract with the allies was canceled, for he slammed his office door shut with a bang and mumbled something profane concerning the breaks in the

CULTIVATION IS BEST IN APPLE ORCHARD

Keep Away From the Roots, or Cultivate Very Shallow—Every Root Broken Off Injures Tree.

(By M. B. CONOVER, Bell Farm, N. Y.)

The orchard in question was in and of permanent orchard grass when it came into my possession four years ago, having been seeded two or three years before. There was the four years since I bought it this section has not fared amiss, drought is the answer.

There was quite a lot of deadwood in the orchard and this was cut out the first year. The scars healed over with the bark in many instances, indicating a vigorous condition of the tree.

The next year a more drastic pruning was given and the orchard showed a good crop of fruit was borne.

The soil of an orchard should be retarded through cultivation and this extended under the outer row of apple trees. The third year the trees through the center of the orchard began to die back to an alarming degree and the foliage turned a sickly yellowish green.

Examination revealed no scale insects, but I feared some insects pest was at work in my orchard and my trees must go. However, early last spring I turned under the sod in the orchard and have cultivated the soil all the season. The trees are looking not but to be going to take more than a couple of years to get back to normal condition—if not longer.

The trees on the outer edge which received cultivation the last year, suffered no dying back, but have grown long, vigorous branches which last year bent to the ground beneath a load of fruit, and the foliage is a fine dark green.

If I had turned the sod under the first year I have no doubt that my trees would have borne much more abundant, judging from the cultivated trees, yet the sod has had no influence made from the turned under sod.

I believe that two years is long enough for any orchard to be kept in one place, and that we would have given better results

Judging from the appearance of many orchards over this section of the country I believe some growers are putting too much faith in sod; that is, they are leaving the sod upon the orchards too long and whatever this is being done the trees look about as sick as sod.

I have a row of Baldwin apple trees along a lane. A wide strip of fine-bled has grown, under them on the roadside for many years, but the field they border is under continual cultivation.

The trees are healthy and vigorous and bear fruit well, so it seems that partial cultivation does much to keep the trees in good condition.

CONSTRUCTION OF POTATO STOREHOUSE

CROSS SECTION

Basement Type of Storehouse With Elevator for Loading.

In the construction of a potato storehouse or cellar there needs to be a combination of the proper ventilation, insulation, light, convenient storage, ease, durability and cost. The best temperature is just above freezing or about 34 degrees. Well-insulated walls, a properly drained location and ventilation are essential in maintaining an even temperature. Darkness is demanded for table and seed potatoes, but light is needed for those characteristic of exposed potato tissue. On the other hand, light prevents disease, toughness the skins and is a check to excessive sprouting. Cellars should have light in the spring without warmth. A knoll is the best place to locate a potato cellar, as it can be placed well into the knoll and still have good drainage. Each square foot of space will carry 200 pounds of potatoes filled five feet deep. A cellar 24 by 100 feet will hold nearly 20,000 bushels. The plan shows construction of house to hold 10,000 bushels when filled ten feet deep.—Orange Judd Farmer.

USING HEN MANURE AND ASHES IS BAD

Ohio Experiment Station Gives Reply to Questions as to Fertilization of Soil.

The Ohio experiment station has received frequent inquiries as to how to use hen manure, and whether it is of advantage in fertilizing the soil. The following reply from the station gives the question in Don't. Ashes are about twenty times as rich in potash as the material contains, in the form it is which is the case, and it is not enough to make an ammonia gas. Ashes and dry hen manure may be mixed immediately before applying the manure, as the ammonia will most be lost and held by the soil. The proper material to mix with manure is acid phosphate, as this serves to fix the ammonia instead of liberating it and also re-enforces the manure with phosphorus, which is the element most needed by most soils similar to that in Ohio. Acid phosphate sprinkled over the dropping boards will reduce the loss of ammonia and increase the effectiveness of the manure.

A mixture of 25 pounds dry hen manure, 150 pounds acid phosphate and 100 pounds unleached hardwood ashes will contain practically the same amounts of ammonia, phosphoric acid and potash as would be carried in 500 pounds of 1-10-2 fertilizer. By using a sand sieve and a wooden pestle and mortar, and be sure such a mixture may be applied with the ordinary fertilizer drill, and if the ashes are not added until needed in a few days of the application there will be no appreciable loss of ammonia.

TURN YOUNG LAMBS INTO CORN FIELDS

This Should Be Done While Weeds Are Young and Tender—They Do No Damage.

(By R. G. WEATHERSTONE.)

It is good practice to turn the lambs into the cornfield as soon as the corn is matured enough so it will not be injured by them. They should of course be turned in while the weeds are yet young and tender. They will then crop them down and in doing so will render the most manifested service to the field. They will also crop off the lower leaves of the corn and by this way will obtain much food without probably doing any harm to the corn. The shades furnished by the corn when the weather is unusually hot will be good for the lambs.

When lambs gently weaned are turned into such fields it may be necessary to supplement the food given to them. It probably will be necessary to feed some grain, and if this is done, and consequently will be more than this if they grow in bright sunshine. Even when newly weaned lambs are turned in to graze on good pasture, they should as a rule be given a supplement of grain. When they pasture amid corn, if thus fed, the lambs will not only be directly benefited but the corn will be benefited by feed, or some of it, will be proportionate helpful.

WAS MISERABLE COULDN'T STAND

Testifies She Was Restored to Health by Lydia E. Pinkham's Vegetable Compound.

Lackawanna, N. Y.—"After my first child was born I felt very miserable and could not stand on my feet. My mother-in-law recommended to try Lydia E. Pinkham's Vegetable Compound and my sufferings became little, appetite good, also elastic, and I felt that weak, tired feeling. That was six years ago and I have had three fine healthy children since. For female troubles I always take Lydia E. Pinkham's Vegetable Compound and it works like a charm. I do all my own work."—Mrs. A. F. KRAMER, 1174 Electric Avenue, Lackawanna, N. Y.

The success of Lydia E. Pinkham's Vegetable Compound, made from roots and herbs, is unparalleled. It may be used with perfect confidence by women who suffer from displacements, inflammation, ulceration, irregularities, periodic pains, backache, bearing-down feeling, flatulency, indigestion, dizziness, or nervous prostration. Lydia E. Pinkham's Vegetable Compound is the standard remedy for female ills.

Women who suffer from those distressing ills peculiar to their sex should be convinced of the ability of Lydia E. Pinkham's Vegetable Compound to restore health to them. Its many genuine and truthful testimonials show that it does what we claim in our newspapers.

If you want special advice write to Lydia E. Pinkham Medicine Co. (confidential) Lynn, Mass. Your letter will be opened, read and answered by a woman and held in strict confidence.

Sure of Congregation.

A Kansas clergyman recently appointed entered one of the cells on his first round of visitation and thus addressed the prisoner who occupied it:

"Well, my man, do you know who I am?"

"No, nor I dinna care!" was the nonchalant reply.

"Well, I'm your new chaplain."

"Oh, ye are? Then I has heard o' ye before!"

And what did you hear?" returned the chaplain, his curiosity getting the better of his dignity.

"Well, I heard that the last two kirks ye were in ye preached them baith empty; but I reckon I'll be willing to hold up quite as easy to do the same wi' this one."

Long-Distance Cash.

"Clothes were never so cheap. A dollar goes a long way in this store," said the proprietor to the woman customer.

"How far did your dollar go?" asked Smith.

"What do you mean, boy?"

"I mean the dollar, sir, that the man put into that little racing car on the wire. Did it go as far as that other lady's two dollars?"

The Limit.

"How do you stand the heat?"

"Much better than I can stand the man who insists on talking about it."

Henry is the home where Red Cross Ball Blue is used: there is no other.—Adv.

Feel All Used Up?

Does your back ache constantly? Do you have sharp twinges when stooping or lifting? Does your head ache and you feel worn out so further?

Kidney weakness may cause dizziness, headaches, nervousness, lack of energy, dizziness and urinary disturbances it is no wonder you feel all used up.

Doan's Kidney Pills have cured thousands of kidney ills. Ask your neighbor!

"Have Taken Doan's Kidney Pills off and on for years. Mrs. Alonzo W. Ward, 10 Mill St., Meadville, Pa., says: "I was all run down and had kidney trouble. My back was weak and I could hardly stand. I felt dizzy and had spots before my eyes. My kidneys were bothered with too frequent passages. Doan's Kidney Pills helped me wonderfully. I was able to do my work and felt like a new woman."

Kidney Pills restored me to good health." Price 50 cents, at all dealers.

Get Doan's at Any Store. 50c a Box

DOAN'S KIDNEY PILLS

FOSTER-MILBURN CO., BUFFALO, N. Y.

The Army of Constipation

Is Growing Smaller Every Day.

CARTER'S LITTLE LIVER PILLS are the cause. They are not only give relief but permanently cure Constipation, Sick Headache, Dyspepsia, Indigestion, Sick Headache, Yellow Skin.

SMALL PILL, SMALL DOSE, SMALL PRICE.

Genuine must bear Signature

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TRADE MARK REG.U.S.PAT.OFF.

will reduce Inflamed, Swollen Joints, Sprains, Bruises, Soft Bunches, Heals Boils, Pull Evil, Quittor, Fistula and Infected sores quickly. As a preventive it is priceless. Pleasant to use. Not blister or remove the hair. Does not blister, remove the hair, or lay up the horse. Book 3-M free.

ABSORBINE, JR., the antiseptic liniment for Man, Bruises, Wounds, Weals, Sores, Throat troubles, Gout, Sprains, Swelling, Varicose veins, Varicosity, Painful, Swollen veins, Varicose ulcers, Varicose eczema, Bottle $1.00 at druggists or delivered. Will tell you more if you write. Manufactured only by W. F. YOUNG, P.D.F., 310 Temple St., Springfield, Mass.

The Doctor's Sacrifice

By GERALD RALPH AMOS

(Copyright, 1915, by W. G. Chapman.)

Everybody wondered when middle-aged Doctor Hicks; a widower with a small son, became engaged to the rich Miss Louise Bonner of the Manor. But the story of the breaking off of that engagement was less of a wonder and more of a scandal. Some blamed the Bonnets and some the doctor, but all were agreed that he was a fool to let people know so much about his business.

The diphtheria epidemic in the village was over, however, but there were more than a score of cases. Mrs. Soutar's son Leonard, Louise's brother, was one of the first, and the doctor's son Frank one of the last, and there wasn't any antitoxin. The state board, which supplied it, had been held up by some sort of crank injunction. However, antitoxin was not considered necessary at first. The cases were doing very well without it, all except that of Leonard Soutar and Frank Hicks. The doctor would not antitoxin badly, and he had just enough for one injection in his tube. People got to know that, and that was the doctor's cardinal error.

Mrs. Soutar and her daughter were pain-stricken over the possibility of Leonard's death. When the doctor announced that he intended to use the remedy only as a last resource, the former, whichever of the two boys needed, it most, the situation became acute. At Leonard's bedside Mrs. Soutar went down on her knees.

"He's dying, doctor. My boy's dying," she sobbed. "Save him, doctor! Save him!"

The doctor raised his head. "My son is worse," he answered.

"But you must save Leonard, I tell you. He is all I have—my only son," cried the distracted woman.

"My boy is my only child," answered Hicks. "It is a matter of simple medical duty. I shall give the antitoxin to the one who is most in need of it."

He went away. At home, his own boy was in the advanced stage of the disease. Gossip had it that he was dying. Finally he entered his house before the telephone got busy. Mrs. Bonner heard that Frank Hicks was receive the drug.

She left the nurse at her son's bedside and hurried with her daughter to the doctor's house. Both were admitted without ceremony and found Hubert Hicks at his son's bedside. The boy was conscious. He was lying beside him stood a little phial contain-ing the antitoxin. Hicks explained the doctor had a hypodermic syringe in his hand, and he was injecting some of the stuff into the boy's veins.

"Tell him!"

"If you dare—if you dare, Hubert," sobbed Louise, "our engagement is broken."

"That makes no difference," answered the doctor gravely. "This boy is more in need of it than the other. That is all I can say."

He dipped the hypodermic into his phial, and the mother, darting forward, knocked both phial and hypodermic from the table, sending them rolling into a corner. The phial cracked and spilled its contents upon the floor.

"At least, if you won't save your own shall die," cried Mrs. Soutar to her boy. "Come Louise!"

The two women went out of the room, out of the house, and home, to find that Leonard was better.

By nightfall he was out of danger. At the same hour Frank Hicks had died in his father's house.

There was no other doctor in the village. Doctor Hicks continued to attend the sick, but they were not convalescent. Then he ceased to come. He sent his bill in the regular way, but he was never seen at the Soutar house again. The gossips said, however, that there had been a public scene before the left for the last time, and that Hicks had refused the money offered him. The gossips said he could forgive the loss of his son better than that of his "cure," said the villagers.

For two years Hicks and the women only bowed when they passed. Then Mrs. Soutar fell ill of the incurable disease that was to result in her death. Hicks again became a constant visitor at the home, but strictly in his professional capacity. The Soutars were the last of the old families of the town; their lives were extremely lonely and exceedingly quiet. All their old associates were dead, except the doctor, who had come to the place in youth, thirty years before, and even then the old traditions had largely ceased, and the stories of the lives of the first settlers had become forgotten. His friendship with the Soutars had come about through a sister of Mrs. Soutar, a maiden lady, who had been a constant visitor at his home when his wife lived. But she had died almost at the same time as Mrs. Hicks, and so link remained between the families.

A few nights before her death the old woman called the doctor to her bedside. Brokenly she told him that she had no one who is whom to confide. Then she told him her story. It concerned her dead sister. Years before, in girlhood, she had suffered a great wrong. She had gone away her child, a boy, had been born in a remote place and left in the foundling hospital there. Afterward she had married and came to a town nearer, where, in the gloss of an interrupted life, she could see him occasionally. But the boy had been adopted and, in accordance with the rules of the institution, she was refused all information as to his whereabouts.

"I want you to find my child and care for him, doctor," she said. "There is a little money—a private board, devoted to this purpose. And nobody must know. Even in death I shrink from the shame that would follow her."

Hicks promised, and the dying woman closed her eyes in peace. She passed away a few days later, happy in Hicks' assurance that he had already traced the child.

It was the day after the funeral that Louise sent for the doctor and told him the identical story.

"I never knew," she said, "until the night before my mother's death. She was rambling, then, but I picked up enough of the story to understand and to realize your obvious nature in disrupting the quest. But, when the child is found, I want to be able to provide for him. He may have grown up in an environment unfitted for such test by mine."

Hicks laid his hand on her shoulder.

"I want to tell you first," he said, "that I have not faltered in my faith in you. I know that you always have loved you. Will you be my wife, Louise?"

She looked at him earnestly. "I have a son," she said. "Will you be his father?"

"Then I shall find my child," he said.

"If I should show you that this loss of your boy's death must ever be between us, I shall always hate me."

"If I should show you that this loss of your boy's death must ever be between us, I shall always hate me."

"Nature's Refreshing.

The great storm of January, 1911, destroyed practically the whole plant of the Tabel company, including turban, muff and neckpieces, are the mediums on the island have been prohibited by the authorities, the sources of recreation has been cut off. Tabel plants appeared first, fringing the borders of streams and lakes, and were borne by the wind, and when the flood receded left behind them seeds of bamboo, low trees and climbing vines, and luxuriant grass.

Cost of Living High in Teheran.

In normal times Teheran, Persia, is the most expensive capital in the world in which to live, as states Chicago Post, where a fowl is sold up for $10 per ton, apples, $1.50 per bushel, and a pound of butter costs from 65 cents per pound, butter, 55 cents per pound. The cost of living is largely caused by the lack of transportation facilities, and the transport to Teheran from the nearest seaport is a distance of 50 miles) by donkeys. Goods imported from Russia Persian gulf are transported from Bushire, a distance of 1,000 miles (a distance of 800 miles) by mules and camels and are usually from six to seven weeks in transit. Goods imported through Russia are subject to a heavy transit duty and are transported across the mountains from Enzeli to Teheran (a distance of 250 miles) by pack animals and wagons.

Rhode Island's Last Hanging.

The last execution in Rhode Island took place in 1845. John John Gordon was hanged for the murder of Amasa Sprague on December 31, 1843. No doubts were so strong that a mouse ran out on to foot to make an capital punishment. Thomas H. Hazard (Rhoda Tom) was the leader in the movement. His labors and writings were finally successful, and in the year 11, 1852, the general assembly passed an act abolishing hanging in this state. On several occasions since notable, a few years ago, unsuccessful attempts have been made to re-establish hanging for the crime of murder. But the sentiment of Rhode Island is strongly against it.—Newport Mercury.

Highland Baggie.

The Highland baggie is louder than any other bagpipe, because it was originally designed to cheer the clans when they were fighting hard, or some of them were in the fight, or some of it, will be proportionate helpful.

Handsome Coat for General Wear

American textiles have been making rapid advances in the manufacture of the finest of these. This holds good especially of cotton, but in true of wool and silk as well. This remarkable advance is due to the shades which brought forcibly to mind by the new 'fabric furs' manufactured for the coming season. Last year we called them 'fur-cloths,' which is a more descriptive name for them. But manufacturers, having made some of them so like the fur of animals in appearance, have now adopted the name of fabric furs they are.

Not all of the cloths of this kind are woven to imitate furs. Some of them are supple with silky surfaces and are used for costumes. Many others are of a heavy textile nature and are used for topcoats and as trimmings for other clothes. With the advance of the season they are likely to appear with a muffs and neck pieces. Already at the millinery establishments, the fashionable turban, muff and neckpiece, are the mediums on the island have been prohibited by the authorities, the sources of recreation has been cut off. Tabel plants appeared first, fringing the borders of streams and lakes, and were borne by the wind, and when the flood receded left behind them seeds of bamboo, low trees and climbing vines, and luxuriant grass.

Then She Told Him Her Story.

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Long-Distance Cash.

"Clothes were never so cheap. A dollar goes a long way in this store," said the proprietor to the woman customer.

"How far did your dollar go?" asked Smith.

"What do you mean, boy?"

"I mean the dollar, sir, that the man put into that little racing car on the wire. Did it go as far as that other lady's two dollars?"

The Limit.

"How do you stand the heat?"

"Much better than I can stand the man who insists on talking about it."

Henry is the home where Red Cross Ball Blue is used: there is no other.—Adv.

Little Girls' Hats, Made by Home Milliner

There are some styles in millinery, for instance, that are liked by small people, that are always good. The little Quaker bonnet, for instance, is only varied by differences as to size and fabric or color and trim. It is always sure of a welcome by mothers and misses. Some little girls up to the age where the young lady forgets her dolls, and wants to be a grown-up miss, wear this bonnet, and never get tired of it in to look in line with fashion's vagaries.

A pretty turn for the miss from four to sixteen is shown here. It is made of white silk and velvet (velvet is a stance midnight blue). With two-color cord trimming and a white petersham cord and tassel of silk. The cord trimming is of white and the color of the tam.

The hat at the left is a familiar shape with crown slightly higher than the rim, and with a pleat in the top, the top, because a shape that is very popular with the miss is a bandkerchief—if one desires to keep the bandkerchief. A pretty finish to such a costume, as well as a service-able one, is a little muff of the same or dainty little bags just large enough to hold a given handkerchief and a little box. They are done in silk and figured satin and silkwool on a ribbon which hangs on the wrist.

Some people make an effort to be happy and trust to luck to be good

THE KITCHEN CABINET

I tell you the future can hold no terrors for me,
For one sad soul and white the years can bring
If he will but stand firm on the green of his spring
And instead of cooperating, resolve.
—E. W. Wilson.

HINTS FOR HOUSEKEEPERS.

A damp cloth dipped in common baking soda will clean tin-ware.

The CO2 steel wool is the best thing to scour iron and keeping it free from rust.

Cabbage will not fill the house with odor if cooked in rapidly boiling salted water in an uncovered dish.

Boil the tea and coffee pot often in strong soda water; then will keep them free from stains.

Red ink may be removed from linen if freshly made mustard is applied and left on an hour, then sponge off and the stain will disappear at once.

To remove mildew from linen, wet blotting paper and apply a very hot iron. Dab the paper on the mildew and the grease will be absorbed in the blotter.

A quick way of cleaning currants is to rub them with flour, then with cold water off the stalks. Put the currants in a colander and rub them with the hand.

To make whipped cream stand firm and stand more from add the white of an egg, beaten stiff.

Never allow irons to become red-hot after the first time they are used as well again.

Two or three times a week a boiling solution should be poured into the sink. It is best to do this at night, so that it will not be wasted any longer than it can be set on the grease in the pipes.

Cream of tartar and boiling water will keep green delicate colors from fading or turning, if a teaspoonful of salts to a gallon of water.

Cracks in furniture may be filled with beeswax, then smoothed with a hot iron. Scratches may be rubbed out of the hidden folk. He said he was rendered of a small pocket-knife and money.

One afternoon little Jimmy had been playing rather strenuously in the street. When he returned to his home he found an overheated look. Jimmy's mechanical bank-saver, on seeing the youngster, "come here a moment."

"Yes, ma am," obeyed Johnny, quickly hunting to his mother's side.

"What in the world have you been doing?" demanded the fond parent. "Your head is all perspiration."

"That's all right, mamma," was the indifferent response of Jimmy. "My coat leaks."

ONLY A FEW PIMPLES

But Many More May Come If You Neglect Them. Try Cuticura Free.

Cuticura Soap and Ointment are most effective in clearing the skin of pimples, blackheads, redness, roughness, itching and irritation as well as freeing the scalp of dandruff, dryness and itching, besides satisfying every want of the toilet and nursery.

Samples each free by mail with Book. Address postcard, Cuticura, Dept. T, Boston. Sold everywhere.—Adv.

Sort of Coolish.

The hero-worshiping young girl was talking about her idol. "He was turned from the war. "They tell me," said the girl, "that he was so cool he was as cool as an iceberg."

"I heard argument." "Yes, I was so cool I act only shivered."

Important to Mothers.

Examine carefully every bottle of CASTORIA and see that it bears the signature of Chas. H. Fletcher. In Use For Over 30 Years.

Children Cry for Fletcher's Castoria

Its Aim.

"I wonder what is the chief end of the average woman's club?"

"I guess it's to hit the men."

Some men are never neutral. They are either kicking or being kicked.

Something of Gold Him To.

"Always be the same as you are now," he whispered to her tenderly, "and it is all I ask, my dearest one."

"And if I am you will always love me?" she said quietly.

"Yes," he answered, "always."

She looked beyond him—into space. Only she knew that are long she would be quite different, for she was growing old.

Then she smiled into his face. "And the more you see of me the greater will be your regard, will you?" she asked.

"Yes," he answered, "I swear it!" And then she was comforted.

To Drive Out Malaria

And Build Up The System

Take the Old Standard GROVE'S TASTELESS chill TONIC. You know what you are taking, as the formula is printed on every label, showing it is Quinine and Iron in a tasteless form. The Quinine drives out malaria, the Iron builds up the system.—Adv.

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10c Worth of DU PONT

Will Clear $1.00 Worth of Land

NOTHING TO WORRY ABOUT

Little Jimmy's Explanation of the Perspiration He Doubt Satisfied His Mother.

Senator Clarence D. Clark of Wyoming smiled the other day when referring to a remark made by one of the sons of the Hidden folk. He said he was rendered of a small pocket-knife and money.

"Two afternoons little Jimmy had been playing rather strenuously in the street. When he returned to his home he found an overheated look. Jimmy's mechanical bank-saver, on seeing the youngster, "come here a moment."

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Grand Prize, Panama-Pacific Exposition San Francisco, 1915

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Is Just Right

It has the delicious taste and natural color of high-grade cocoa beans; it is skilfully prepared by a perfect mechanical process; without the use of chemicals, flavoring or artificial coloring matter. It is pure and wholesome, conforming to all the National and State Pure Food Laws.

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