

CALIFORNIA TROUT STREAMS.

**I** DOUBT if there is any place in the U. S. where better trout fishing can be had than in California. But the great drawbacks are in the long distance and the hard road getting to the streams. Just before the law was up in this State I went trouting with a chum on the San Gabriel River, which is about fifteen miles to the mouth of the cañon from Los Angeles. When one gets to the cañon he must go ten miles up the cañon before reaching the good fishing. And what a road; boulders two and three feet in circumference often block the tortuous and hilly way. The only way to get there is to go on horseback from the mouth of the cañon. But when you reach the fishing grounds there are abundant fish and a lovely stream. We camped there two weeks. During that time we took 976 trout, all over six inches; we could have caught as many more but could not have used them. I caught over 100 in one day. We also took guns along for the quail, and altogether had a grand time.

San Antonio Cañon is a good place for trout, and is much more easily reached than San Gabriel. The only way is to go and stay for a week or two at a time.

This is a great place for campers; over 400 tents were on the beach at Santa Monica this year. They made quite a town.

C. B. W.

LOS ANGELES, Cal., Dec. 29, 1885.

CAMPING CLUB RULES.

**F**OLLOWING are constitution and by-laws of the Jolly Hunting and Fishing Club of Hites, Pa.:

Article I.—This club shall be known as the Jolly Hunting and Fishing Club of Hites, Pa.

Article II.—Night of Meeting—First and third Monday of each month.

Article III.—The dues shall be fifty cents per month.

Article IV.—Sec. 1. All officers shall be elected annually on the first meeting night in June. Sec. 2. Nominations for officers shall be made at last stated meeting previous to night of election.

Article V.—Sec. 1. It shall be the duty of the President to preside at all meetings of the club, preserve order and enforce the by-laws of the club. He shall decide all questions of order, act as judge of elections and declare the result of the club. He shall sign all orders on the Treasurer for such money as by a vote of the club shall be ordered to be paid. Sec. 2. The President shall, on the last night of the term, appoint a committee of three to audit the accounts of the Secretary and Treasurer, whose duty it shall be to make a financial and statistical report at the next stated meeting. Sec. 3. It shall be the duty of the Vice-President to assist the President, and in his absence preside at the meetings of the club and perform such other duties as are enjoined by the regulations of the club. Sec. 4. It shall be the duty of the Secretary to keep accurate minutes of the meeting of the club; also make a monthly report of each and every member, which report shall be read in open club meeting on the first meeting night of each month. Sec. 5. It shall be the duty of the Assistant Secretary to aid the Secretary in the performance of his duty, supply his place when absent and perform such other duties as are enjoined by the by-laws. Sec. 6. It shall be the duty of the Treasurer to pay all orders drawn on him attested by the Secretary and none other; he shall receive all money of the club and hold the same until the expiration of his term of office. He shall keep a correct account of all money received and expended, and shall perform such other duty as may be required of him by the club or his office. Sec. 7. It shall be the duty of the Camp Sergeants to see that the tents are properly pitched and attended to; see that there is always a sufficient quantity of provisions and attend to the camp in general.

Article VI.—Sec. 1. Any officer may be removed from his office for conduct unbecoming his station; for absenting himself for three successive meeting nights, unless his absence is satisfactorily accounted for.

Article VII.—Sec. 1. Every person admitted into this club shall pay the sum of \$2; also sign the agreement card of the club.

Article VIII.—Any member of this club who is more than three months in arrears for dues shall consider himself suspended until payment of same, if satisfactory to the club.

Article IX.—Sec. 1. No member shall speak more than once on the same subject or motion, until all who desire shall have had an opportunity of being heard; nor more than twice without permission from the chair. While speaking, each member shall designate the person spoken of by his proper rank and title. Sec. 2. No member shall be interrupted while speaking except to call him to order, when he shall take his seat and the question of order is determined; when permitted, he may proceed with his remarks. Sec. 3. If two or more members rise to speak at the same time the President shall decide who is entitled to the floor.

Article X.—Sec. 1. Any member not present at roll call shall be fined the sum of ten cents unless satisfactory excuse be given.

Article XI.—Sec. 1. Any member who shall misbehave in the meetings of the club by disturbing the order or harmony thereof, either by personal, abusive or profane language, or disorderly conduct or who shall refuse obedience to the President shall be fined the sum of ten cents. Sec. 2. Any member or members behaving in a manner unbecoming a gentleman while in camp or in every day life, shall be fined the sum of one dollar for the first offense; and for the second offense shall, by a two-third vote of members present, be expelled from the club. Sec. 3. No member or members shall be permitted to enter the club room on the Sabbath day.

Article XII.—Sec. 1. No hunting, fishing, playing any kind of games shall be permitted on the Sabbath day, nor swearing or any other immoral conduct while in camp; any member violating this section shall be fined the sum of fifty cents. Sec. 2. Any member known to indulge in any intoxicating liquors while in camp shall be excluded from the club by a majority of votes of members in camp. Sec. 3. No member or members shall be permitted to do any foraging while in camp under penalty of expulsion from the club by a majority of votes of members in camp.

**TOWED BY A WHALE.**—The steamship Advance of the United States and Brazil Mail Line, which arrived yesterday from Rio Janeiro, brought six men belonging to the whaling schooner Mary E. Simmons. They were rescued on Dec. 1 in an exhausted condition, after having passed two days in an open boat without food or water. The Mary E. Simmons is a New Bedford whaler which late in November was cruising along the South American coast. On the morning of Nov. 29, when the vessel was off the east end of Pernambuco, a school of whales was sighted. Capt. Manly soon brought

his vessel close to the whales and gave the order to lower away the boats. The first and second mates got into their boats, and soon each had killed a whale piece and had fastened on to another. As the first mate's boat had been smashed a few days before, that officer had taken the boat usually handled by the third mate. Capt. Manly ordered John Praro, the third mate, to take a spare boat and join the first and second mates. Praro took with him five men, and was soon among the whales. Selecting a large one, he buried his harpoon in the back of the monster, which immediately dived under water and started off at a frightful rate of speed, pulling the boat after him. Praro kept the harpoon line fast, and the whale sped on until it was eight or ten miles from the schooner. It then suddenly came up under the boat, which it nearly capsized. The boat filled, but by hurriedly bailing her out the men kept her from swamping. The harpoon line was let go, and the oars were lashed to the boat in order to prevent them from being washed away. The men looked around for the schooner. She was miles away and evidently not following them. The sailors watched anxiously, and shortly before dark they saw the schooner heading toward them. She was, however, proceeding slowly. When darkness settled down over the distant schooner it revealed one of her lights, which seemed to be coming nearer for a while and then appeared to stop. Then it slowly grew smaller and at midnight disappeared. There was neither food nor provisions in the boat, and the next day the men began to suffer from thirst. In their longing for water they scarcely felt the want of food. During the afternoon a sailor named Tony, who appeared to be suffering from thirst, sprang up and began to shout in a delirious manner. He fancied that he saw vessels approaching from all directions. He cried to the people on these phantom crafts to save him. Finally he made a spring as if he would plunge overboard. He was seized by two of his comrades, who threw him down in the bottom of the boat and lashed him there. The poor fellow raved wildly, but he was too weak to free himself from his confinement. No vessel was in sight that day. Thirst kept the weary men from sleeping, and they lay on their seats listening to the sound of the waves and the cries of their raving shipmate. When at length day broke over the ocean two sails were in sight, although many miles away. One of the vessels proved to be the County of Clare, Capt. McNell, which picked up the suffering sailors about noon. The boat's crew comprised Third Mate Praro, Manuel Homem, Antonio Perrira, Lawrence Lodreviner, Antonio Manuel Lima, and Alexander G. Wood. The latter is a Connecticut negro, but the others are Portuguese. The Consul at Pernambuco secured passage for the men on the steamship Advance.—Times, Jan. 7.

**THE CHARMS OF RAINBOW TROUT ANGLING.**—The law now permits fishing for rainbow trout in the State of New York, and to those of our readers who propose to try it this week, we suggest that outside of the three or four pairs of stockings, they draw on a pair of woolen leggings, which will not at all interfere with locomotion. A little practice with snowshoes may be necessary to the novice, but he will soon master the art of walking on them. Kerosene is said to be good for frost bites and chilblains, a gallon will be sufficient for the day. A heavy pair of fur gloves are just the thing to use in tying on flies and splicing leaders, while a buffalo skin overcoat will keep the body in a pleasant glow. The new combination of camp stool and stove will make an agreeable seat, and axes and ice chisels may be found in any hardware store.

**SOLACE FOR ZERO WEATHER.**—I have taken the FOREST AND STREAM for nine years, and have every copy filed away to look over on just such zero weather as it is here to-day.—H. C. N. (Ashburnham, Mass., Jan. 10).

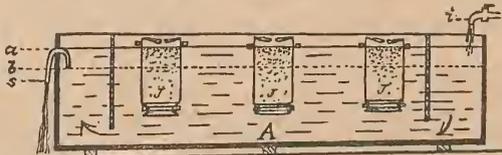
Fishculture.

Address all communications to the Forest and Stream Publishing Co.

HATCHING CODFISH EGGS.

BY JOHN A. RYDER.

**T**HE recent practical success in hatching the eggs of the codfish, at the Wood's Holl station of the U. S. Fish Commission, in a very simple apparatus devised by Capt. H. C. Chester, is my excuse for again asking for a little space in your columns. By the help of this new and exceedingly simple contrivance, the hatching of the very delicate floating egg of the cod becomes as simple, if not a simpler performance, than the hatching of shad or white-fish eggs, now so extensively conducted by the U. S. Fish Commission. By means



of the new method it is possible to hatch out one hundred millions of young cod at a cost for apparatus not exceeding one dollar per million embryos.

During the four seasons of experimental effort in practically solving the problem of cod propagation, not less than forty forms of apparatus had been devised and operated by different persons connected with the work. Yet in spite of all this variety of devices, until now none have fulfilled the required condition even approximately with such complete success as the apparatus devised by Capt. Chester, and now to be described.

The contrivance is essentially automatic and needs so little attention that one man will readily look after 100,000,000 eggs without any difficulty. As in operation at this moment, it consists of a trough 7 feet 6 inches in length, 2 feet in width and 2 feet 4 inches in depth. At about one foot from either end a wooden partition extending within four inches of the bottom is secured. This leaves a space about five feet six inches in length between the partitions, in which six or eight large glass jars are supported with their mouths downward. The jars used at Wood's Holl are ordinary cylindrical, four-gallon glass specimen jars, with a half inch hole drilled in the center of the bottom. The stoppers of the jars are removed and a single thickness of coarse cheese cloth is secured over the mouth with strong twine. The jar is then inverted and lowered into the trough so that the bottom is about even with the top of the trough, and is supported on a rack-work of transverse strips nailed to a ledge near the bottom of the trough. Strips nailed across the top of the trough serve to keep the jars upright.

A still better idea of the apparatus may be gathered from the accompanying figure showing the device in longitudinal

vertical section with the jars in place. The trough A is filled with unfiltered sea-water through the faucet *i*, the water rising to the level of the line *a* before the outlet siphon begins to operate. The siphon will then empty the trough to the line *b* when it ceases to flow, the water then slowly rises again to the line *a*, and so on repeatedly. It requires ten minutes for the water to rise or fall from the one level to the other, and, since the jars have only a cloth tied over them below, the water rises and falls to the same extent in them. This very slow and gentle rise and fall of water in the jars and trough, has been found sufficient to aerate the eggs and give them all the movement they need.

The majority of the eggs in this contrivance float at the surface, some of course remain suspended below the surface, but an exceedingly small percentage of the eggs ever sink and die as in almost all of the other forms of apparatus hitherto used. The result is that the mortality is probably under five per cent.—a percentage of loss not greater than that experienced in the most successful treatment of shad eggs.

The freshly fertilized eggs, treated with an abundance of good mill, are introduced through the hole in the center of the bottom of the jars, by means of a glass funnel. Beyond an occasional siphoning off of the sediment on the bottom of the trough and the cloth covers of the jars the eggs require no attention until hatched.

Heretofore great mortality has been caused by the use of metal in the construction of the hatching vessels and strainers. Since the adoption of glass, wood, and cloth as the only materials used in the construction of the hatching apparatus, combined with the very gentle movement to which the eggs are subjected, complete success has been attained. The embryos oscillate up and down through a space of only five inches, from the level of *a* to that of *b*, and withal so gently that they suffer no shocks or concussions of any kind whatever. Capt. Chester's device will doubtless be used with great advantage in the propagation of the Spanish mackerel. In twenty-four hours the latter would be ready to be set free from the apparatus, whereas it requires eleven or twelve days to hatch the eggs of the cod, with the temperature of the water ranging from 45 degrees Fahr. to 48 degrees Fahr.

Each of the jars, which are 17 inches high by 9 inches in diameter, will hold from one-half to one million cod eggs, so that an apparatus of the size shown above would accommodate from three to eight millions of ova, contained in six to eight jars, the largest number which could be accommodated in a trough of the size of the one here described.

These experiments show that a violent movement of the eggs of the cod is of no advantage, that such movement is on the contrary injurious, if not mortal, when continuously maintained. The requisite conditions for successful hatching of this important food-fish having been settled, the great station at Wood's Holl affords unlimited opportunities for conducting the work for at least three months of the year, during which time from 500 to 1,000 millions of eggs might readily be hatched and set free with the help of the new hatching apparatus.

Wood's HOLL, Mass., Dec. 21, 1885.

**THE GERMAN FISHERY ASSOCIATION.**—It is with pleasure we note the fact that at a recent session of the Reichstag, the Deutsche Fischer Verein was given an appropriation to enable them to carry on their work. Heretofore this Association, of which the renowned Herr von Behr, Schmoldon, is president, has done all its work from funds contributed by its members, and has had no government recognition whatever. They have stocked lakes and streams, exchanged eggs with America and other lands, and printed their own reports of work and discussions. Under their auspices the great International Fisheries Exhibition of 1880 was held, and they have done a great deal of good work, finding their reward in doing it. The appropriation is not a large one to begin with, but it is the fact that the German government has begun to take an interest in it, that is cause for congratulation. No doubt the government will be more liberal in future years as the work increases.

**SOLES ARRIVE FROM ENGLAND.**—On Monday last a few soles arrived on the White Star steamer Britannic, being one lot in a system of exchanges between Mr. E. G. Blackford and Mr. T. J. Moore, curator of the Derby Museum at Liverpool. The fish were so stiff with the cold when they reached Fulton Market, that it was difficult to tell whether they were alive or dead. They were sent to the State hatchery at Cold Spring Harbor, where, if alive, they will be cared for.

**FISHCULTURE IN TASMANIA.**—Several of the favorite fishes of Europe, such as the turbot, sole and brill, as well as crabs and lobsters, are to be taken to Tasmania, with a view to acclimatize them. The eggs of some of the British fresh water fishes will also be sent there. If they have none of the species mentioned, there is evidently a broad field for fishculture in that land.

BOOKS RECEIVED.

- FROM LEE & SHEPARD, BOSTON, MASS.: Tell Your Wife. Paper, 50 cents.
- The Globe Drama: Original Plays. By George M. Baker. Cloth, \$1.50.
- Parlor Varieties. Part II. By Emma E. Brewster and Lizzie B. Scribner. Paper, 30 cents.
- The Reading Club. Parts XV, and XVI. By George M. Baker. Paper, 10 cents each.
- Ten Boys Who Lived on the Road: From Long Ago to Now. By Jane Andrews. Cloth, \$1.
- The Popular Speaker. Selections by George M. Baker. Cloth, \$1.
- The Dawning. A Novel. Cloth, 328 pages, 50 cents.
- Five-Minute Declarations. Selected by W. K. Fobes. Cloth, 196 pages.
- Five-Minute Recitations. By W. K. Fobes. Cloth, 200 pages, 50 cents.

**DID YOU EVER HEAR THIS BEFORE?**—Jo Badger used to tell a good story. It may date back to another "Jo," surnamed Miller. I am not going to vouch for the originality of any story that I did not make up myself, and even then I should expect to unearth it in some old almanac, or other joker's cemetery. But, Mr. Badger's story, whether old or new, always produced its effect. Jo would gradually insert himself into a crowd of sportsmen engaged in the popular amusement of proving Ananias to have been but an unsophisticated bungler in his business; and, after listening to their accounts of slaughter wrought among the birds and beasts as to make one wonder that the entire fauna of the region was not exterminated, he would begin in that easy drawl that pertains by right to the acknowledged raconteur of the corner grocery: "Speaking of shooting, the longest shot ever I made was back in New York State, when I wasn't much more 'n a boy, —wasn't considered no kind 'o shot. Well, it was a Sunday mornin'; I happened to look at an old dead tree away off, most as far as I could see anything. There was one limb left, and a crow was sittin' on it. It was so far off that I couldn't 'a' seen the crow if he hadn't been black and the old tree so gray. I could just see it behind the door, loaded, and I took it up and, just in fun pointed it at the crow. I didn't have no more idea o' hitting that crow than I have now o' shootin' you. But, I sighted him, and without thinking what I was a-doin' I pulled the trigger and bang she went." Here Jo would stop down, looking for another piece of single or something to whistle on; and after a second or so, some impatient auditor would besure to ask: "Well, d'ye hit 'im?" The surprise and innocent look on Jo's face would be a study, as, with the air of one who had utterly forgotten that any denouncement was expected, he would slowly answer: "Hit 'im? Bless your heart! no; didn't come within a mile of him!"