WORKERS *in the* DEEP

OF all callings that embrace danger and romance that of diving probably comes first, and well it might, for not only does a diver work in an element foreign to his own, but he faces a score or more of dangers any one of which might be fatal. Not only are these the dangers of accidents under the water, but the diver's life is always in the hands of his helpers, who must, while he is below, and full for a moment to keep the life-giving air pump going, but they must be able to comprehend his signals and act accordingly and promptly.

Scores of stories of the work of divers have been written. Some of them are true, some are fiction, but whether real or imagined, they do not in the least detract from the romance that seems to attire like a halo around those who perform their work deep under the water.

Usually divers are associated with sunken treasure, wrecks, the gathering of shell, pearl oysters and sponges and but few give a thought to the fact that the diver is engaged in numerous other, and less romantic, occupations in which risks far greater than the mere going into a wreck are taken.

In bridge building, for instance, divers are frequently employed to lay the foundations for the great piling and concrete and concrete that will support one of the spans of the structure. A notable piece of work of this character was done on a bridge that was built a couple of years ago at Cape Colony. There it was necessary that a foundation be laid in 180 feet of water.

One hundred and eighty feet of water is a depth that is very seldom attained, and there are but few instances on record, yet the foundation was laid.

It is said that the record is held by Hooper, an Englishman, who descended 295 feet to the wreck of the Cape Horn, lost off South America. In 1906 a Frenchman went down 180 feet to the wreck of the Slyra, off Cape Finisterre, and went in his after valued at $450,000 after first having blown the ship partly to pieces with dynamite.

Another diving record was established by Alexander Lambert, who recovered $50,000 in gold from the wreck of the Spanish mail steamer Alfonso XII, which was in 150 feet of water. It is said that the last time he went down he remained four hours, this he itself being a phenomenal record, as the hours is regarded as about the limit of any diver's endurance.

Diving is a peculiar work and there are not many who can do it. It not only requires soundness of body, but one must be something of a mechanic as well, especially if he is going to engage in minor water building. Besides that he must be a man who is willing to take chances, must be able to keep his head at all times, no matter how scared, and then, maybe, he will die in bed.

A diver named Donovan recently came very near dying in Baltimore harbor, but he did not know of it at the time. He was working in 25 feet of water directing piles that were being driven by a 4,000-pound hammer. In some manner the hammer was released and the great weight plunged to the bottom of the harbor. Donovan was directly in the path of the huge weight so close that it struck his air hose within two feet of his helmet.

Fortunately the force of the blow hurled the diver away from the weight, instead of under it. In the meantime the men above were alarmed lest they kill him. They knew that the diver was directly under the hammer and they naturally supposed he had been struck. There was hurried consultation and the lifeline man began to jerk and pull as hard as he could to ascertain whether Donovan was caught or free. The engineer for a bridge or two was fearful.

In the meantime Donovan didn't know just what it was that had thrown him. The water was so muddy and dirty that he did not see the weight. In fact, he was astonished by being jerked by the lifeline, and as soon as he overhauled his air pipe to prevent feeling it be tugged the signal to be hoisted. To be sure and it was with many sighs of relief that his big round helmet was sight ed at the surface. He climbed pretty out of water and stood on the gunwale of his boat while his helper unscrewed the helmet.

"What the drove is the matter?" he asked as soon as his head was free of the helmet.

His helper, pale and trembling all over, could scarcely tell him, but he finally managed to describe what he and the other workmen had thought.

"Humph!" replied Donovan. "Tell those fellows to be just a little more careful. Now put on that helmet and I'll go out and finish hammer."

In a few minutes he had a line fast to the hammer and it was hoisted up.

Donovan doesn't take much stock in reports of diving deeper than 150 feet; that is, for practical purposes. He declares that a man cannot stand such a depth for more than an hour or perhaps an hour and a half and that after he he comes up he must rest for at least 12 hours before going down again.

"Where it rather one is in the shadows," he said, "the upper part of the body is protected by the rifle, but the lower part has no compression solid, but the abdomen has no bones at all, and there is where it hurts. I heard of a man who got 150 feet for an hour and a half, and he only lived seven days after. The strain ruptured his intestines. In deep work 75 feet to 150 feet, that is our great out depth. The only way to overcome it is by wearing heavy weights and taking plenty of time. The air compresses the pressure of the water and the weights hold us down. If by chance the air pressure should lessen, even a few pounds, our situation is serious.

"In the water it is pretty much like it is on land," he continued. "If a man is hunting for trouble he is pretty sap to find it. I have been diving for 18 years and I've been all along the coast, from Halifax to Florida, and I have never been attacked by anything worse a conger eel. He was a big fellow, too; six or seven feet long and as big around as my thigh.

"It has been my experience that if a man keeps busy nothing will disturb him. The fish are afraid of him; sharks are scarce, and he has no trouble. With this set, however, it is different. He came at me without doing a thing to him. I was so scared that I could not even find my spear, which I generally carry, and he stuck his ugly head right up to the glass in my helmet. Ugh! I could almost hear his teeth snap I was that scared. I stuck my hands forth with feet to insert them and he did not budge. I don't know how long, about two minutes, I guess, and then he just turned and left.

"What did you come up for?" asked my helper when he had taken off the helmet.

"Wake up for something to eat," I replied.

"I reckon you did," he replied. "Why man, you're pale as a ghost."

"I didn't let on just what had happened, and after getting a bite and taking a smoke, I went down again. This time I went after my spear and found it. Then I let everything else go while I looked for Mr. Eel. I soon found him, for he evidently was waiting for me. He was lying on a little ledge or rock, but before I knew just what was what I had his spear into him. Talk! Well, you have no idea how that fellow squirmed. It was all I could do to hold him down and we had as lively a ten-minute scuffle as you ever want to see. "But I finally got the eel right and he died. To tell the truth I felt like a murderer. I felt like I had a little murder on my hands. But I finally managed to describe what he and the other workmen had thought.

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This Gold Fish Was A Banker

Fish stories are rife in May, and under the seductive influence of balmy spring new rumors come to light of the same old stories we have heard since boyhood days. Congressman Plumley of Vermont, of portentously serious air, is asserted to be a smiling group of colleagues that a couple of seasons ago he had his watch and a little gold glove overboard while waiting by a placid pool for a bite. The question has been so much discussed next year, he declared under oath, he caught a fish in that self-same pool—a fine fish, of course—and he found within the fancy armor of that Vermont lawmaker's vest, the lost gold pieces and 30 cents accrued interest.

Flak Commissioner Stevens insists that this is another result of his labors to propagate thrifty habits among gold fish. He says that the monetary fish is a placid pool for a bite. The

Rob'n Nest in Drawing Room

I saw the other day in a friend's drawing room a unique sight, writes the Rev. T. Hinsliffe Bartlett, of Dickens, England. During cleaning operations a robin flew into the room and made repeated attempts at building a nest in the center cold of a chandelier. The building material of leaves, etc., was strewed away twice, but after the room was cleaned the determined little redbreast tried

PROPAGATION OF THE GRAPE AND PRUNING AND TRAINING

Cuttings Should be Made by Getting in Close Below Bud in Slanting Manner—Thorough Understanding of Names of Various Parts of Vine Is of Great Importance.

(By GEORGE C. HUBBMANN, Professor, Agriculture.)

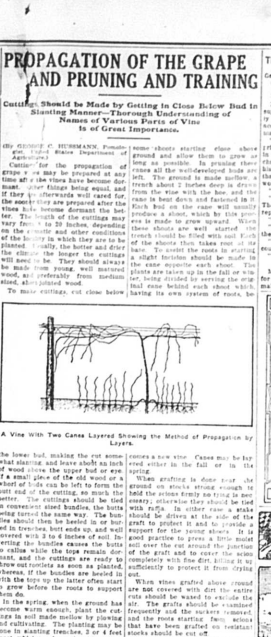
Cuttings for the propagation of grape vines may be prepared at any time after the vines have become hardened. Other things being equal, and if they are prepared well and for the same they are prepared after the vines have become dormant in the fall. The length of the cuttings may vary from 12 to 20 inches, depending on the growth and other conditions of the bud to be which they are to be planted. Usually, the better and drier the climate the longer the cuttings will need to be. They should always be made from young, well matured wood, and cut from medium sized, slender jointed wood.

To make cuttings, cut close below some shoots starting close above ground and allow them to grow as long as growth is made, because these canes all the well-developed buds are ready to grow in the spring, and some French about 2 inches deep in drawn in a slant with the bar, and the cane is bent down and fastened in it. Each bud on the cane will usually produce a shoot, which by this process is made to grow upward and these shoots are well started the trench should be filled with soil. Each of the shoots then takes root at its base, the fertilizer is worked in, and a slight incision should be made in the cane opposite each shoot. Transplants are taken up in the fall or winter, and divided by setting the original cane behind each shoot which, having its own system of roots, be comes a new vine. Canes may be prepared either in the fall or in the spring.

When grafting is done near the ground the cuttings are usually made held the scions firmly so tring is necessary; otherwise they should be tied with raffia. In either case a stake should be set by the side of the graft to protect it and to provide a support for the vine to tie to. The good practice to press a little mold over the cut surface of the scion and of the graft and to cover the scion completely with fine dirt, filling it sufficiently to protect it from drying out.

When vines grafted above ground are not covered with dirt the entire rots should be waxed to exclude the air. The grafts should be examined occasionally and the ties loosened and the roots starting from scions have been grafted, the surplus shoots should be cut off.

Scions grafted are also tied with raffia. They may be planted out directly



A Vine With Two Canes Layered Showing the Method of Propagation by Layers.

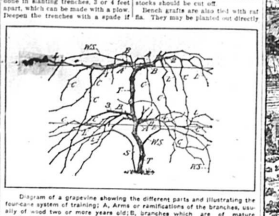


Diagram of a grapevine showing the different parts and illustrating the four-year system of training: A, main stem; B, branches, also called arms; C, wood two or more years old; D, branches which are of another wood, being several years old; C, canes, called shoots when young and canes when mature; L, laterals, the secondary shoots of a cane; S, scions, a shoots starting below the ground from the main body of trunk, the stem or main body of the vine; W S, water sprouts, the shoots which come up from the ground from wood older than one year; 1, 2, 3, 4, two-yearly arms.

Spring is the time to begin the work of propagation by layers. The Rotundifolia vines are usually always propagated in this manner, but with other species it is usually resorted to only with varieties which do not root readily from cuttings. In layering those canes of the last season's growth are preferably those that start near the base of the vine.

It is well, in the summer before, to layer on the side of the vine opposite the lower bud, making the cut somewhat shorter and leave shoots as much of wood above the upper bud or eye. If a small piece of the old wood or a wheel of bark can be left by the lower bud and of the cutting, so much the better. The cuttings should be tied in convenient sized bundles, the butts being cut even the same way. The bundles should then be heeled in or buried in a trench with the butts and covered with 2 to 4 inches of soil. In setting the bundles across the butts to calloa while the tops remain dormant, and the cuttings are ready to throw out rootlets as soon as planted. However, if the bundles are heeled in with the tops up the latter often start to grow before the roots to support them do.

In the spring, when the ground has become warm enough, plant the cuttings in well made nurseries by planting and cultivating. The planting may be done in shallow trenches, 2 or 4 feet apart, which can be made with a spade. Deepen the trenches with a spade if necessary. Set the cuttings at such a depth that the uppermost bud or eye project above the ground and firm the soil about them. The cuttings should be spaced 2 to 3 inches apart, between them different varieties with the varieties, some rooting more readily than others. Keep the soil clean with hoe and cultivator, and stir the surface the summer to keep it mellow and moist. Frequent stirring of the soil is better than irrigation.

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LIMING OF WET LANDS IN FALL

Caustic Forms Which are Generally Most Economical are Now Distributed in Powder.

The period of late July and August offers the best time for the drainage of many wet areas of land which have accumulated that name. Fall and early winter seasons, says Professor O. Popple of the New York State College of Agriculture, Cornell University, are also favorable.

Particularly is it desirable to drain lands that are of the nature to order that the soil which is thrown out will be the drainage of those other wet places on the farm which show themselves in the field by the dwarfed crop and the discrete which it suffers during these dry periods. These places which suffer most from drought are often the same areas which have had an excess of water in the early spring.

The application of lime on old meadows and upon other land which is to be plowed for a long next spring should be considered. Caustic forms of lime which are generally most economical in this state are best distributed in the early fall or early spring. Fall applications followed by late fall or early spring plowing are preferable.

Keeping Chicks Off Grass.

Little chicks should be kept off the grass as much as possible. When it is wet with dew. The hen should be well fed and watered, so that she may rest content in the coop; then if the little ones range for enough on their own account to get damp they have a good chance to return to and will take no hurt.

The Lazy Hens.

Better get all the lazy hens ready for market. Of course, you have trapnests and know to a certainty which are the lazy ones.

TEXT WAS NEW TO HEARERS

Germany's Struggle With the English Language Proves, by Some, Somewhat Mirth Provoking.

Prince Henry of Reuss, who speaks super English, laughed good-natured at a dinner in New York, over the tribulations of certain officers of the German fleet.

"One of our chaplains," said the prince, "had the hardihood to preach in English at one of your Lutheran chapels the other day. He astonished his congregation by saying, as he rose, that he would choose for his text the word:

"And he tore his shirt."

A quite audible snicker went round. The chaplain looked up from his text and repeated the text in a louder voice:

"And he tore his shirt."

The snicker became a laugh, and the chaplain said:

"Our good brother is quoting, of course, the Gadarene swine."

"And the door is shut."

Many a girl strives to make a name for herself rather than attempt to make a loaf of bread.

FOR Luncheon—or picnic sandwiches, nothing equals

Libby's Veal Loaf

It's serve it cold with crisp new lettuce. It is a tasty treat, ready to serve at all well-ordered tables.

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Two Enough for Her.

He was a small boy with a dark, curly head, and he was waiting at the end of the line of eight or ten cabs for a chance to earn a little money by carrying a bag for the people. There is no class more set upon by the tips.

"Shall I carry your bag, lady? Do you get 'Tweenty cents? Keeps the change?"

"No," responded the librarian a little sarcastically, for she was tired, "I think I'll take two. I've only got two, they're not under the sea!"

A Lottery.

"Is that picture one of the old masters you were telling me about?"

"Yes," replied the art dealer. "It is a possible treasure; absolutely authentic."

"I'll buy it. I already have three just like it, and somewhere in the bunch I'm liable to hit the original."

Can't Afford Ta.

Friend—You and your husband seem to be getting on well together just now. I thought you had quite reformed.

Wife—Can't do that these days, our dresses fasten down the back.

Generous.

Jack—When I met my pretty cousin at the train I was in doubt whether I should kiss her.

Tom—Well, what did you do?

Jack—I gave her the benefit of the doubt.

Excusing Herself.

"I see," said Mrs. Jim Jones, while Mrs. Van Tyle was calling, "that you have a Chinese chauffeur. Do you find him satisfactory?"

"Not perfectly fine," said Mrs. Van Tyle. "To begin with, his yellow complexion is such that at the end of a long, dusty ride he doesn't show any spots, and then he wears a coat in my limousine I have his pigtail stuck through a little hole in the plate-glass window and I use it as a sort of bell rope to tell him where to stop."—Harper's Weekly.

The Giveaway.

"Jane," said her father, "how does it happen that I find four good cigars in the mantelpiece this morning? Did Henry leave them for me?"

"No; he took them out of his vest pocket to avoid breaking them last night, and I guess he forgot all about them afterwards."

The laugh that followed made her wish that she had been as careful with her speech as Henry had been with his cigars.—Detroit Free Press.

Why They Want.

As the Sunday school teacher answered her class question, "Why are we here?" the entire class, from the lowest class room, each new leaving in great haste little girl and her still small brother.

"Why, Mary, you aren't going away?" the astonished teacher asked.

"Please, Miss Anne, we've got to go to the Chinese laundry."

"Why, what for?"

"Why, Mr. Ah Sing, he's gone, and we want to see if he's come back."

Old Michigan's wonderful batter
Eats Toasties, 'tis said, once a day,
For he knows they are healthful and wholesome
And furnish him strength for the fray.

His rivals have wondered and marvelled
To see him so much on the job,
Not knowing his strength and endurance
Is due to the corn in TY COBB.

Written by J. P. MAGEE,
Port Washington, Wis., Two Rivers, Wis.

One of the 50 Jingles for which the Postum Co. Battle Creek, Mich., paid Ty Cobb.

He Tossed the Glass and Contents in Fentress' Face.

THE PRODIGAL JUDGE

By VAUGHAN KESTER

Illustrations by R. McIlvaine

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SYNOPSIS.

The scene at the opening of the story is laid in Virginia, in the fictitious county of Tucker, in the mountainous region of the west. The place is to be sold, and the Spottswoods, the last of the aristocrats, are present. Among the bidders are Jonathan Crenshaw, a business man, and Colonel Dabney Carvel, a gentleman of the old school, who is accompanied by Harry Fentress, a mysterious child of the old Virginia family. Colonel Carvel's purpose in bidding for the property is to restore Gabriel Ferris back to the Spottswoods, for Gabriel, who is known as Jack Hazard, is a nameless child of the old Spottswood family, and Colonel Carvel is his godfather. Jack Hazard, the hero, is a young man of great strength and great tenderness. He is a mountaineer, and he is in love with Nancy Sally Hazelrigg, a young girl of great beauty and great tenderness. Jack's father, Jeremiah Hazard, is a drunkard, and he is in the power of Jonathan Crenshaw, who, through his agent, Tolliver, has ruined Jeremiah Hazard. Jeremiah Hazard, a mysterious child of the old Virginia family, is the rightful heir to the property, but Crenshaw has induced Jeremiah Ferris to sign the Hazard property over to him. Jeremiah Hazard has taken Nancy to keep Hazelrigg, Captain Brewster, who is in love with Nancy, and Tolliver, who is in love with Nancy, Trouble at Brandy Hill, when Hazelrigg, Tolliver and Brewster, with Jeremiah Hazard, come to Brandy Hill, where Jack is threshing and assisting Nancy in her work. Jeremiah Hazard, in his drunken folly, has sold the property to the plaintiff, Robin Hadley, a friend of Colonel Carvel's, who has come to Tucker to see the property sold to Jeremiah Ferris, but and is rescued by Bruce Carrington, a friend of Jack's, who has come to Tucker to see the property sold to Jeremiah Ferris and Hazelrigg disappear. With Morrell and Jack Hazard, Carrington goes to Brandy Hill, where he discovers the property sold to Jeremiah Ferris. The property is sold to Colonel Carvel, who gives it back to Jeremiah Ferris, and Colonel Carvel leaves Carvel's family on their return home. Carvel's family on their return home, Carvel, Fentress, Carrington, Jack Hazard, Nancy and Jeremiah Ferris are at Hole Flute. Hazelrigg's office, discovered by Tolliver, Brewster and Hazelrigg, who are in the employ of Crenshaw, who is the real owner of the property. Jeremiah Ferris is sent to Hole Flute. In planning for his escape from Hazelrigg, Tolliver, Brewster and Hazelrigg, Jeremiah Ferris is taken to Morrell's place. The plans carry the plaintiff, Robin Hadley, a friend of Colonel Carvel's, who has come to Tucker to see the property sold to Jeremiah Ferris,