

A NOVEL LIFE PRESERVER.

The lower portion of the curious device which is represented in the annexed illustration resembles a life-preserving dress; the upper part is a kind of buoy or floating chamber, in which the occupant has some freedom of motion for his head and arms. The object is to provide the shipwrecked person with not only a means of flotation but with complete shelter. Inside the enlarged upper chamber, it is proposed to place provisions and a water supply; so that the wearer can stay afloat for a month, if need be, with safety and comfort.

The interior of the apparatus is shown in Fig. 1. Fig. 2 represents it closed. The upper portion is made of strong sailcloth, waterproofed and distended on a jointed cylindrical frame. Across the lowest ring a diaphragm is placed, in which are two apertures for the legs, which are incased in waterproof pants and boots, covered with metallic rings, in order to afford protection against fishes and sharp rocks. These rings are made to fit one within the other when the dress is folded so as to enable the device to be stowed in small space. The top of the upper chamber is inclosed by a hood, in which a window is made. An air pipe is provided, leading to a respirator fastened over the mouth of the occupant. An annular air chamber is provided, which keeps the upper part of the apparatus well out of the water. Mr. Traugott Beek, of Newark, N. J., is the inventor.

How a Chinaman Caught a Ticket Agent.

Silver coin is at a discount in California just now, and it is customary to demand gold when the amount is over \$10, which explains the following from the San Francisco *Bulletin*:

"Too muchee smartee" was what the moon-eyed child of the Orient said to the ticket seller at the wharf when gold was demanded for three tickets to Stockton, at \$3.50 each, making \$10.50.

"Too muchee smartee; you no cachee gold allee time."

"Yes, John, I must have gold for these tickets—ten dollars and a half. Come, out!"

"How muchee one ticket?"

"Three dollars and a half."

"Allee light; me takee one," and he paid his three dollars and a half in silver; then bought another one and paid three dollars and a half in silver, and bought a third in the same way, having paid out ten dollars and a half in silver without showing any gold. With a look of triumph the mild-eyed son of Confucius gathered in his last ticket, and said:

"Too muchee smartee."

IMPROVED WATER ELEVATOR.

We illustrate herewith an improved steam pump for raising water by the direct action of the steam, in analogous manner to steam injectors. A is a steam-conducting pipe, which is placed within an outer pipe, and surrounded by coal ashes to prevent condensation. It is bolted, by a face plate, *a*, to a flanged casting, B, so as to be readily detached therefrom, for changing without removing the casting from the seats. The casting, B, is submerged in the water, and made of two flanged sections, which are jointed together, one section supporting, in suitable bearings, the nozzle, C, that connects with the steam pipe, A. The other section supports, in similar manner, a tapering spout, D, through the contracted opening of which the water is drawn through perforations, *b*, of the nozzle section, and forced by the action of the steam into the wider discharge pipe, A'. The latter is attached, by a face ring, *d*, binding on the flanged rim of the pipe, to the opposite end of the casting, B, so as to be changed with the same facility as the steam pipe. The action of the steam produces a partial vacuum and creates a suction that draws in the water to be raised, forcing it forward and upward to any height through the water-discharge pipe. The pump, it is claimed, may be used with advantage as a bilge pump on board of steamers.

This device was patented through the Scientific American Patent Agency, February 13, 1877, by Mr. Alexander Wright, of Havana, Cuba.

Poisonous Silk Dresses.

In purchasing silk, many require that the material shall possess both weight and stiffness, these qualities adding to its rich appearance and allowing it to be draped more gracefully. Heavy silk is also commonly believed to be of better manufacture and to wear better, as the extra weight is supposed to be due to a thicker and closer fabric. While all heavy silks are not necessarily weighted, a large proportion of them are.

The weighting of black silks with a compound of tannic acid and oxide of iron, far exceeding in quantity what is really needful for the production of a black color, has now been known for a considerable time, and has been carried so far as to deprive the material of its non-conducting power

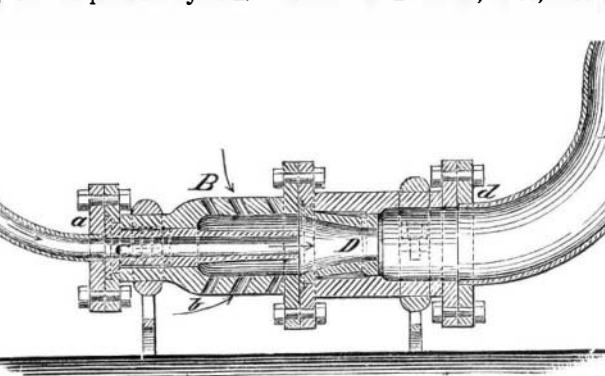
for heat and electricity, greatly to impair its strength and durability, and even to render it liable to spontaneous combustion. Consumers, however, till lately "laid the flattering unction to their souls" that white and light-colored silks must be genuine. Alas! the depraved ingenuity of the age has introduced sophistication in this department also, and it is possible to buy white silks—white goods, rather—consisting of about one third to one half the genuine product of the silkworm, the remainder being made up with oxide or carbonate of lead. This stratagem is not merely a fraud upon the purchaser—who asks and pays for one thing, and receives another very inferior in its properties—but it is a direct attack upon public health, and (we learn from the *Chem-*

ical Review) in that capacity has already brought forth evil fruits. Persons who are continually handling such weighted silks are liable to lead poisoning. Still greater is the risk for milliners and dressmakers who sew with silk, and who are in the habit of biting off the end of the thread, or of putting it in the mouth to make it the better enter the eye of the needle. A minute quantity of lead is taken into the system each time; it remains and accumulates, and, at last, colic, palsy, and other alarming symptoms make their appearance. These are soon traced to lead poisoning, but not one medical man in a hundred will suspect how the lead is introduced into the patient's system. He will blame water, wine, vine-

gar, food cooked in leaden vessels, etc. In the last guess he may often be right, for the tin with which saucepans are "tinned" is no longer tin, but an alloy containing a large proportion of lead. The so-called tins in which meat, butter, fruits, etc., are now imported and sold are also no longer "tins," save in a "Pickwickian sense," but "leads."

**BEEK'S LIFE PRESERVER.**

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**WRIGHT'S WATER ELEVATOR.**

But, to return, so long as the silk is not recognized as the source of the lead, the patient will go on using it, and recovery will therefore be impossible. This, it must be understood, is no mere matter of conjecture or probability, but of actual fact. Poisoning cases of the kind described have already occurred, and will certainly become more and more frequent if the evil practice is allowed to continue.

The detection of lead is not difficult. If a piece of the silk, or a little of the thread or yarn suspected of being weighted with lead, is moistened with pure water and then

Marvelous Jugglery.

The jugglers of India have for centuries been noted for their remarkable skill in the mysteries of the "black art." The editor of the *Commercial Bulletin*, traveling in the East, has contributed to that paper some very interesting letters on the customs of the strange people he has visited. Under the above heading he tells, in the last issue, his readers that "convalescence is a capital time for mild amusements which will not tire the languid brain, and we had some jugglers up almost every day. We never could find out their tricks, which are very marvelous. Of course, everybody has heard of the basket trick, where a small boy gets inside a basket, and the juggler plunges a sword through and through it, bringing it out reeking with blood, then holds up the basket, shows there's nothing there, and calls the boy, who calmly appears from outside the circle of spectators. And also of the mango trick, where a seed is placed in the ground, is covered with a cloth, and appears as a shrub, growing visibly before one's very eyes, and then bears fruit, which ripens and is edible in five minutes from first planting. These fellows have very scanty clothing, and apparently no apparatus whatever. There are some wiseacres who profess to know all about these tricks. I never saw the disemboweling and immediate healing of fakirs, in India, nor men sitting in the air, 'levitated,' as Madame Blavatsky calls it. But I have seen other tricks as surprising, and equally unaccountable by any art or science with which Europeans or Americans appear to be acquainted nowadays. I have seen a man throw up into the air a number of balls numbered in succession from one upwards. As each went up, and there was no deception about their going up, the ball was seen clearly in the air, getting smaller and smaller till it disappeared altogether out of sight. When they were all up, twenty or more, the operator would politely ask which ball you wanted to see, and then would shout out 'No. 1,' 'No. 15,' and so on, as instructed by the spectators, when the ball demanded would bound to his feet, violently from some remote distance.

"Then I've seen them swallow three different colored powders, and then, throwing back the head, wash them down with water, drunk in the native fashion in a continuous stream from a *lotah*, or brass pot, held at arm's length from the lips, and keep on drinking till the swollen body could not hold another drop, and water overflowed from the lips. Then those fellows, after squirting out the water in their mouths, have spat out the three powders on to a clean piece of paper, dry and unmixed. As to the thimble-riggery of their minor tricks, they are exceedingly expert, but are probably equalled by many of our distinguished *prestidigitateurs*; and whatever may be said of the basket and mango tricks, or the sitting in the air, I don't think any of our people are up to the sending of balls into space and recalling them in an unpremeditated order. This reminds me of the trick Marco Polo, the great Venetian traveler of earlier times, speaks of having seen at the Court of Prester John, in Central Asia, when a bean was planted and sprung up rapidly toward the heavens, its summit being lost in the clouds. Up this, one juggler traveled, and then another after him, with a drawn sword. In a few minutes, down dropped ears, a nose, a head, and limbs of No. 1; No. 2 leisurely descends, wiping a bloody sword, shovels up the fragments of his victim into a box, and goes on with other performances, presently calling out for his defunct companion, who thereupon presents himself, as large as life, all alive and kicking, from the throng. This is not a modern trick, but those I have seen are certainly not less marvelous. Then, too, it is a well authenticated fact that some of these jugglers, on more than one occasion in recent years,

have suffered themselves to be buried alive, and have been dug out alive after the lapse of a year."

Treatment of Hydrophobia.

The following treatment of hydrophobia is suggested in the *Medical Journal*. The patient is to be undressed, seated on a cane chair, and the whole body up to the neck enveloped in blankets. Under the chair a spirit lamp is placed. This lamp is protected in a cage, on the top of which is a receptacle for the calomel (twenty or thirty grains), and a saucer for water. The flame beneath boils the water, and volatilizes the calomel. Moderate salivation, which is all that is required, says the writer, may be induced in a quarter of an hour, and judiciously repeated if the symptoms seem benefited by the treatment. This treatment is said to have been successful in a case of hydrophobia in India during 1867.