

PRATT'S PATENT VENT STOPPER.

Within the past six or eight years, the great improvements made in the use of tin plate in the manufacture of cans, and every variety of articles for domestic use, have excited the wonder of all who have not made themselves familiar with this subject. The enormous consumption of cans for different purposes, has led to many patented improvements tending to reduce their cost, or to add to their utility and convenience.

The constantly increasing price of oak timber for staves, and the difficulty of obtaining such as are suitable for the secure transportation of oils and other penetrating fluids, render the substitution of cans almost a necessity. Nature has given us an unfailing supply of iron, the basis of tin plate, and the cost of the latter, notwithstanding the large duty upon it, has become so low, that with the advantages of improved machinery, and the economy of a well organized business, packages for the transportation of oils, can be furnished at almost the same price in proportion to capacity as well-seasoned barrels. For these reasons, together with freedom from leakage, and the avoidance of danger and loss by spilling, or changing of goods from barrels or casks by the dealer or retailer, it has now become a universally acknowledged fact that it is cheaper to buy oil, spirits of turpentine, etc., in such cans, than in barrels.

Among the many candidates for public favor in this line, "Pratt's Guaranty Patent Can," of which we give herewith an engraving, has gained an enviable reputation, and is probably as perfect a device for the purpose designed as has ever been invented.

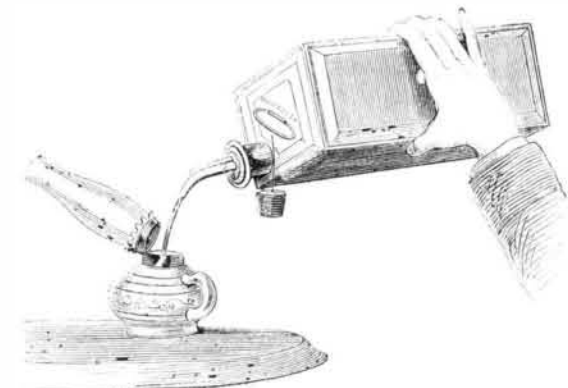


From the extended use of these cans a necessity has arisen for some simple and cheap means for overcoming the difficulty, which has been experienced in emptying cans and small vessels without spilling some of the contents, resulting principally from the fact that there was no vent or conduit for admission of the air to the can, while the liquid was being poured out. To remedy this difficulty, vent-nozzles or other like devices have hitherto been used with cans or vessels; but such appliances have always been costly, and their use has been attended with inconvenience, while they require cans of special construction, and indeed, are permanently united with and form parts of the cans.

A device of this kind, however, has been recently invented and patented by Charles Pratt, 108 Fulton street, New York city, which is worthy of attention. It is simple in construction, can be easily and cheaply made, may be readily removed from or applied to the can, and used with any can of ordinary or suitable construction, and may be manufactured and sold as a distinct article, not necessarily accompanying the can.

The invention consists of a stopper, also shown in the engravings, for oil cans, or other liquid-holding vessels (for whatever use), provided with an opening or spout for the outflow of the liquid, in combination with a vent for the ingress of the air.

The manner in which this device can be constructed and used will be readily understood by reference to the drawings.



The body of the stopper, which is here represented as composed of cork (but which may be made of any other suitable material), carries a tube or spout for the outflow of the liquid, and another and smaller tube to act as a vent. The two tubes pass down through the body of the stopper and open into the interior of the vessel, the smaller, or vent-tube, being arranged upon one side of, and so as to follow the curve of the larger tube, so that when the vessel is tipped to pour the liquid, the larger tube will be beneath, by which arrangement the oil or fluid will flow only through its proper channel, the larger tube, or spout, leaving the smaller tube or vent free for the passage of the air.

The tubes are fastened to the cork by means of metal disks, which are soldered to the tubes at such a distance apart as to compress the body of the cork between them, the turned-up edges of the disks entering the cork and holding it tight. As already stated the device may be formed of cork or of any other suitable material capable of closing the orifice

in the can, it may also be of metal and can be screwed into or upon the neck of the can.

In any event, however, a detachable stopper will be obtained, in which the spout or opening for outflows combined with a vent; and this device can be applied to any can, vessel, or receptacle for liquids, whatever its shape or size, provided that such receptacle be provided with a neck or mouth, into which the stopper can be fitted.

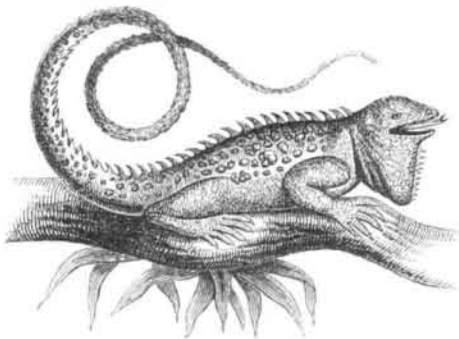
For the Scientific American.

IGUANAS.

Iguanas, or guanans, are a genus of lizards, one species of which is known to zoologists as the *Iguana tuberculata*. They are of a bright, green color when young, that hue changing to a dusky brown as the reptile advances in age. According to Webster, the term, Iguana, is derived from the Spanish name given to the animal by the natives of Haiti, in which island the iguana abounds. They are found also in the other West India islands and in some parts of South America. The size of these creatures varies from that of the common lizard, or nuto, to over four feet in length from the nose to the end of the tail. The head is similar in shape to that of an ordinary lizard, and is covered with a scaly armor of a pink color, tinged occasionally with blue and brown. The eyes resemble those of a fowl, and though small are very bright. The back is provided with a serrated comb, which extends from the nape of the neck to within a few inches of the end of the tail. The animal can elevate this or depress it at will, and with its tail can deal a lusty whack, inflicting sometimes a severe gash with this saw-like comb, some anecdotes of which peculiarity will be given further on. In old age, the skin assumes the appearance of old leather, being wrinkled in many parts, and it is so tough that with difficulty can it be penetrated by a shot.

Iguanas inhabit, generally, thickly wooded spots, where they perch on high trees, and, as they are of a green color, they can easily conceal themselves among the branches and leaves while they await their prey. Unlike chameleons, they are very lively in their movements, and will even pounce from a tree to the ground in order to seize what they want.

The food of guanans consists of herbage, insects, and poultry and their eggs, the latter of which they devour with great avidity and are very cunning in perceiving them. I once saw one of these reptiles attack a hen with her brood of chickens. Darting from a tree, it made a rush at the chickens, on which the mother flew at it and pecked it; but Mr. Guana was not to be outdone, so, though evidently smarting



with pain, it turned round and dealt the hen a lusty blow with its tail, thereby stunning her, and seizing its desired food it made for its haunt there to devour the poor chicken at ease. When it had finished this, it returned with full intent to pursue the same course, to which, however, I put a stop by discharging one barrel of my fowling piece at the rapacious monster. As soon as the smoke caused by the discharge had cleared away, I was much surprised to see the guana spring into a neighboring tree. But I was not thus to be foiled; so raising my gun, I discharged the second barrel at it, which took effect killing it instantly. The spot from which the guana sprung when ascending the tree was marked with blood, therefore I felt assured that the first shot hit it, the more so as there were perforations in the skin of the reptile that had assumed a whitish tinge, which is the case after the charge has been in the body some time.

How true it is, I do not know, but it is asserted that the guana is provided with a pouch under its throat, in which it conceals eggs very often. It happened on one occasion that I was out hunting, accompanied by my dog; and, returning, I thought I would pass through my poultry-yard to ascertain if I could shoot any more of these destructive creatures. I had not long entered the gate when my attention was attracted by a cackling among the fowls, and soon found it to be occasioned by the presence of a huge guana, which was disputing the right of a hen to some eggs upon which she was sitting. Wishful of seeing the procedure of the reptile, I watched it narrowly; it deliberately raised its whip-like appendage and brought it down on the back of the poor fowl; of course, she could not stand that, so she dashed upon it with all her force; the guana taking advantage of the opportunity was going to seize an egg to make away with it when I started my dog at it. Ready for defense, the agile lizard raised its tail, and laid it two or three times over the dog, sending her away howling, while it made for the bush hard by.

Although applied with considerable force, the blow given by means of the tail of the guana cannot make an incision through the hair of an animal, or feathers of a bird; but it inflicts a most unsightly wound in the flesh of a man, if the guana be large and if it apply the serrated portion of the whip to the object of its rage.

The flesh of this disgusting creature is esteemed by some persons as a great delicacy, and it is said that it bears a resemblance to chicken when stewed. The eggs, I believe are

eaten by some epicures, but I think the former has too strong a likeness to that of frog's flesh, and the latter to the eggs of serpents to be relished by persons not accustomed to such diet.

I have noticed several specimens of the guana exhibited in some of the druggists' windows in this country, some of which, I presume, have been brought from the island St. Thomas, D. W. I., to which place the foregoing narrative has reference.

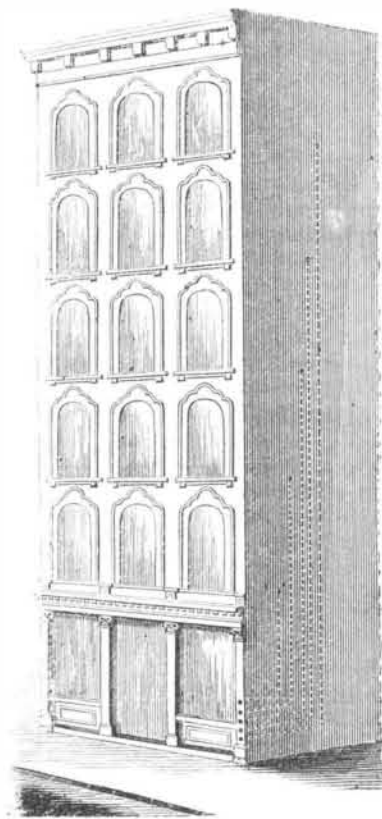
J. R. G.

Correspondence.

The Editors are not responsible for the Opinions expressed by their Correspondents.

Extinguishing Fires in Buildings.

MESSRS. EDITORS:—I send you a plan of apparatus for extinguishing fires, which is original with me and may be new to others, and although not perfect in itself may lead to some thing better. It is this: In constructing the walls of a building, carry up within the wall, cast-iron or other metal pipes, one for each story, each pipe of the capacity of at least one steam fire engine; the lower ends opening near the ground to



which a hose can be attached, the upper ends opening in upon the several floors above. If there is no dead wall in the front or rear, the pipes can be constructed within the partition walls (see drawing), the dotted lines showing the position of pipes within the partition wall. The openings in the street need not be exposed, but may be placed in the sidewalk, inclosed, numbered, etc.

Now the successful application of this plan is upon the theory that if the floor of a building is flooded with water, its destruction (by fire alone) is prevented, and all above may be consumed whilst the submerged floor and all below are safe, and that all of the upper floors are made water-tight as near as possible, the openings, stairways, partitions, etc., constructed to insure the complete flooding of the floor—one or two inches is sufficient; and no matter if the floor is well stored with combustibles, water will find its way before fire. It has always been a mystery to me why more attention has not been paid to the construction of water-tight floors, when we so often witness the destruction of large and costly stocks of goods by water alone, when fire occurs in upper stories, which are often occupied for hazardous occupations. These fires always prove most destructive because inaccessible.

A building being constructed as before stated, on the breaking out of fire above, the fireman attaches his hose to the pipe leading to the floor on which it originates, and although it is not entirely extinguished, is greatly retarded when other ordinary means can be used.

This idea was suggested to me by the burning of the Lindell Hotel in this city nearly three years ago. In this case the fire commenced in the seventh story, and continued for nearly one hour before any serious apprehensions were felt for the safety of the building.

The following is an extract from the *Chicago Tribune*, in reference to a fire nearly two years ago, and I have noticed recent destructive fires in other cities in which this plan would have been applicable and saved a large amount of property:

"The great conflagration of Tuesday evening, which has shocked the entire community, and which will be remembered hereafter as an epoch in the city's history, will be worth all it has cost if it shall compel us to mend our system of constructing buildings. It is time that our penny-wise and pound-foolish economy in building was abolished, and that stores and warehouses were constructed under a system of public inspection, and with heavy penalties to insure them at least against external fires, and to keep the destruction within the walls where it begins. Burch's Block, though consisting of nine stories, four fronting on Wabash avenue and five on Lake street, burned as freely and scientifically as if the entire building had consisted of one room. One reason