

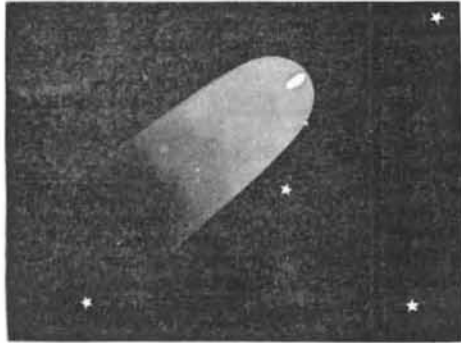
Correspondence.

THE NEW SOUTH AFRICAN COMET.

To the Editor of the Scientific American:

I was enabled to secure a good view this morning of the comet discovered by Sawerthal, at Cape Town, on February 18. At discovery it was too far south to be visible in northern latitudes. But its motion was northeasterly, and it may now be seen in the eastern sky, just before dawn. This morning its position was right ascension 21 hours 40 minutes; declination south, 5 degrees 15 minutes. It is now in the constellation Aquarius, and will soon move into Pegasus.

The comet is just visible to the naked eye, and in the telescope presents an interesting appearance, with a bright nucleus considerably elongated, as shown in the accompanying cut. The tail is short and very broad.



TELESCOPIC VIEW.

Although the comet is growing fainter, it may be easily observed with moderate telescopes for some time to come.

WILLIAM R. BROOKS.

Red House Observatory, Phelps, N. Y., March 25, 1888.

Ivy Poisoning.

To the Editor of the Scientific American:

Referring to the item in your paper by Mr. Heberling, who advises the use of baking soda—while soda is good to relieve the intense itching caused by ivy poisoning, it is not a sure cure by any means, as I have found fully as many cases that it would not relieve as cases that it did.

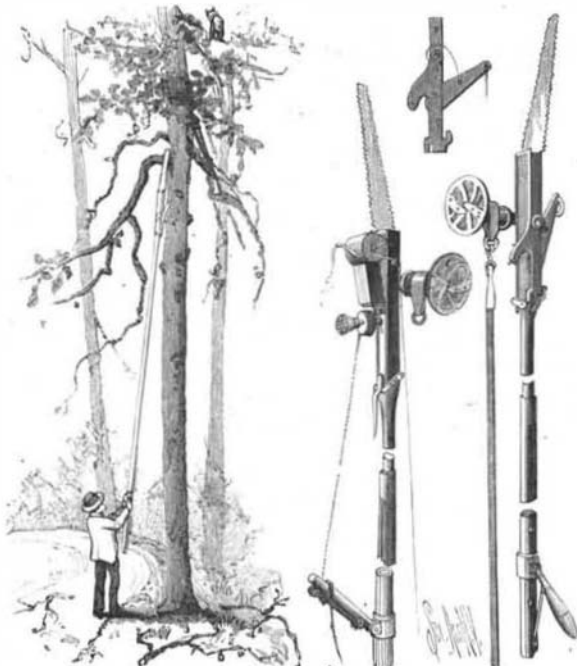
When a boy, I was repeatedly poisoned by ivy. At times soda relieved, and at other times was no better than that much water. It was a subject that interested me, and I studied it, and came to the conclusion that the condition of the blood had more to do with the case than the soda did. Further than this, I found that at times a person is poisoned more readily than others, and still at other times the leaves may be freely handled. Perhaps this is no news to you, but it may be to others. I have never found a sure cure for ivy poisoning, and would very much like to. Can you not give us one in your paper?

By the way, I can go back more than twenty-five years in the use of soda. ARTHUR S. JESSOP.

Humboldt, Tenn., March 16, 1888.

AN IMPROVED PRUNING IMPLEMENT.

A device for use in the pruning of trees of almost any height, and for the dressing of the wounds caused by



BOSCH'S PRUNING IMPLEMENT.

the pruning, has been patented by Mr. Andreas Bosch, of Prairie du Chien, Wis., and is illustrated herewith. Its main supporting pole carries two studs to enter slots in the shank of a double-edged saw, the shank having a catch to engage one of the studs after the parts have been adjusted. The pole also has an adjustable slotted metallic sleeve, to which a lever arm is pivotally connected, this lever arm being connected by a cord with a wax reservoir, beneath which is a lamp and a brush,

whereby the wounds caused by the pruning may be dressed with wax. To smooth and dress the limbs, a spring-operated disk, with two cutting blades, is mounted on a frame overlapping the upper end of the pole, a downwardly-extending cord connecting this disk with the lever arm of the pole. The construction is such that the saw may be used on both the upper and under side of a limb, the saw being reciprocated by the lever, which is connected to the pole, the slotted sleeve being firmly held. One of the views shows another cutter employed to sever small limbs.

The Sea Serpent.

The schooner Coral, Captain Sherman, is now at this port awaiting favorable weather to proceed to Greenport. To your correspondent Captain Sherman reported that recently, when his vessel was in the vicinity of Cornfield Lightship, there suddenly appeared astern and not two hundred feet away an immense sea monster that fully answered the description previously given of sea serpents.

Captain Sherman says he had a perfect view of the monster. He described it as being over one hundred feet in length, and in some portions its body was as large around as a flour barrel. The head of the serpent resembled that of an alligator. The captain called his mate, and they both watched the animal until it passed out of sight, in the direction of the mouth of the Connecticut River. It passed over the water at quite a rapid gait, and as almost the entire body was on the surface of the water, the men had a good view of the creature, and both feel confident that they saw a veritable sea serpent. Captain Sherman appears to be a thoroughly reliable man, and has been master of a vessel for fourteen years, during which time he has made several voyages to the Grand Banks, where almost all species of animals that inhabit the sea are to be found, but never before has he seen anything like the monster above referred to.—N. Y. Herald.

Tasmania Railways.

The island of Tasmania, or Van Diemen's Land, as it was formerly called, lies to the extreme south of Australia, between 40° 15' and 43° 45' south latitude, and between 144° 45' and 148° 30' east longitude. It is separated from Australia by Bass Strait, 120 miles wide, but it is in telegraphic communication with the Australian continent, and therefore with Europe, the Tasmanian and Victoria submarine telegraph being worked by the Eastern Extension Telegraph Company upon a guarantee from the Tasmanian government. The greatest length of the island is 230 miles, and its greatest width 190 miles. Its surface is estimated at 26,215 square miles, or almost the size of South Carolina. The total area, exclusive of islands and lakes, is 15,571,500 acres, or inclusive of these, 16,776,000 acres. The population at the last census in 1881 was 115,705, and it is estimated to be now close on 140,000 persons. Tasmania is a mountainous country, having hills ranging from 1,000 feet to 6,000 feet in height. It has several extensive lakes on the high central table land, and these form the sources of the chief rivers, of which there are several. The climate of Tasmania is very salubrious, and the island is recommended as a sanatorium for invalids, the hot north winds of Australia being tempered by the 120 miles of sea at Bass Strait. The chief products are tin and gold, wool, wheat, oats, barley, potatoes, timber, hops, fruit, jam, and whale oil. The government of Tasmania, with a view to encourage special manufacturing industries, have offered bonuses from time to time, of which the following are yet unclaimed:

Sugar from beet or other products grown in the colony, bonus \$10,000, 200 tons to be manufactured in one year.

Salt.—On 300 tons being manufactured in one year, a bonus of \$2.50 per ton for the first hundred tons, and \$1.25 per ton for the second and third hundred.

Corn Sacks or Woolpacks.—Bonus \$5,000. The quantity of sacking suitable for working up into those articles turned out in one year to be 40,000 yards.

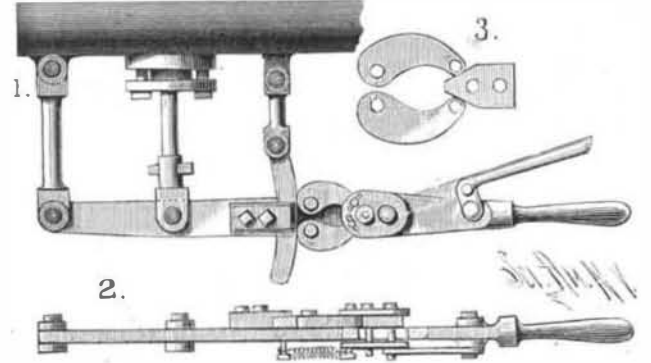
Up to about four years ago Tasmania was considered a sleepy colony, and was dependent upon Australia and England for the supply of most articles of general consumption. Now the country has awakened, trade is developing, and railways are extending in various directions. During the past three years no less than 27 jetties have been erected. Better vessels are visiting the ports of the colony, and large and handsome warehouses and business establishments are being erected in the chief towns.

The Pervasiveness of Lightning.

A correspondent of the Springfield Republican, describing the effects of a recent lightning stroke, says that "the ceiling of the room had been replastered the preceding spring, and the sand of this locality, which is used in mortar, is ferruginous. Every metallic particle in the latter the fluid seemed to have found and detached, so as to give the plastered surface an appearance better described as pock-marked than by any other words at my command."

A DEVICE FOR OPERATING THROTTLE VALVES.

A device for use in connection with the throttle valves and reversing gear of locomotives and engines, for locking the valve lever and its connecting rod in any desired position, has been patented by Mr. Robert C. McArthur, of Hamilton, Ontario, Canada, and is illustrated herewith. A lever is pivotally connected at its outer end with a link pivoted to the boiler, and the rod which operates the throttle valve is pivoted to this lever, which also has a bearing supporting a segmental arm, pivoted on a link pivotally connected with the boiler. Cams, or friction clutches, as shown in Fig. 3, are pivoted to the lever, their eccentric lower ends operating on the periphery of the segmental arm, the upper ends of the cams resting against the edges of a wedge, which, with plates, are held on the lever, in connection with a spring. When the operator de-



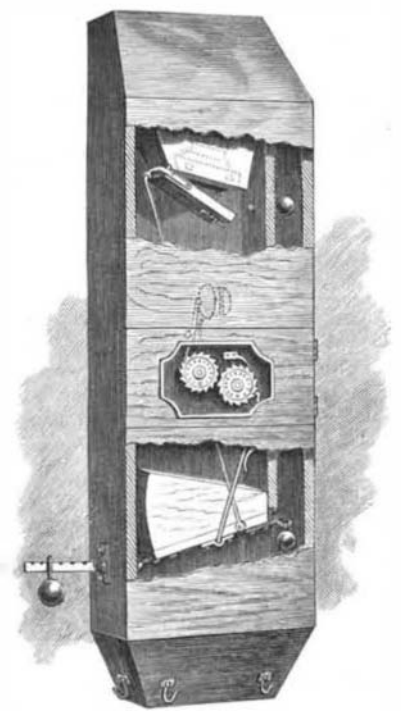
McARTHUR'S DEVICE FOR OPERATING THROTTLE VALVES.

sires to change the position of the valve, he presses on the small handle lever, thus carrying the wedge backward, and disengaging the cams from the periphery of the segment, when the lever can be moved inward or outward, moving in like proportion the rod operating the throttle valve, the operator releasing his pressure on the small handle lever as soon as the desired position of the valve is obtained, when the spring operates through the plates and wedge upon the cams to again lock the lever to the segment. For further particulars with reference to this invention, address Mr. William D. Fitch, No. 100 James Street, north, Hamilton, Ont., Canada.

AN AUTOMATIC GRAIN WEIGHER.

A grain weighing or measuring apparatus, applicable for use in connection with a separator or other machine from which flowing grain is to be weighed, is illustrated herewith, and has been patented by Mr. Joseph C. Morris, of Azalia, Ind. In a casing or box-like structure is arranged a feed chute, in the upper portion of which is a hopper, its mouth closed by a trap hinged to one edge, and having an outwardly-extending pivotally-connected catch arm adapted to engage a lever, upon which a weight is adjustably mounted. Slides with springs are arranged in connection with the hopper to stop the flow of grain when the trap is closed. At the lower end of the chute is a trap normally held in position by a weight,

and having a spring-pressed catch, which, when the trap is closed, rests on the short arm of a lever, the long arm of which carries a weight which may be adjusted to regulate the quantity of grain discharged at each tripping of the trap. The upper trap is closed until a predetermined quantity of grain has been delivered to the hopper, when, by its weight, the trap drops, permitting the grain to fall into the chute, but the traps are so connected that this movement closes the lower trap until the proper weight of grain has been delivered thereto, as fixed by the adjustment of the weight, when the grain is delivered into a sack or bag hung upon hooks at the lower end of the casing, the upper trap closing and being held closed as the grain is being delivered. A registering apparatus is arranged in the front of the case and connected with a gong, which is sounded as predetermined quantities of grain pass through.



MORRIS' GRAIN WEIGHING MACHINE.