the direction of a fire, great attention is paid to this piece of apparatus

The apparatus for releasing the horses can be explained in a few words Each horse remains in a box stall loose, facing the main room of the fire hall In front of him is a door pushed outwards by a spring This door is forcibly closed and fastened by an iron band at the top riveted to a long iron bar, which is in connection with an electro-magnet at the end of the series of doors by an armature When the electric current is broken the iron band slips off the side of the door which is thus pushed open by the spring behind it and the horse rushes out and places himself in his position before the hose-reel, or the salvage wagon as the case may be In connection with the iron rod above the doors are two ingenious contrivances, one for removing the covering from the bed of the foreman up-stairs during sleep, and the other for causing a dilatory horse to start out in quick time, being in the shape of a whip quickly revolved behind him. But these are mechanical contrivances, both being worked by weights which are released when the electric current is broken

THE LARGE BELL OR STRIKER

The large bell remains stationary and the blows are struck on it by a weight of about forty pounds descending on the outside lower rim after describing an arc two feet in length. The mechanical appliances for moving this weight or hammer are too complicated for explanation here, but the general principle is easy A weight of 1,200 pounds is brought to bear upon the hammer whenever the electric current is broken, and when the circuit is again completed, the hammer is drawn back also by this heavy weight ready for another blow.

NOW, THEN, TO SUM UP.

When a fire is discovered near a certain fire alarm box, the box is unlocked and the handle is pulled forcibly downwards, thus winding up the clock work Just at this point let us for a moment consider the position of all the apparatus. The machinery in the box is wound up ready to revolve backward and by bringing the two platinum points on the wires, over a space between the cogs, to break the electric connection. The weight at the large striker is wound up ready to come into play with a force of 1,200 pounds The weight of 20 pounds in the gong is wound up also ready to bring its force into play, and the spring behind the stable door is acting with a strong force The hand at the box is removed from the crank Immediately the brass wheel revolves the electric current is broken the large bell strikes one the gong strikes one, and the doors before the horses fly open At once the electric connection is again made and all the apparatus except the doors is again ready for another blow This is given by the platinum points coming over the second space between the cogs on the brass wheel By the time the number of the box has been sounded on the gong the horses are hitched up and the firemen in their places ready to proceed on their arduous task of fighting the fire fiend

The Silsby Engine.

This engine seems to grow in favor with the public Our exchanges give accounts of tests satisfactorily passed and purchasers secured, among which we may note that at Malone, Franklin Co N Y, and another in Dallas, Texas Part of the test at Malone is interesting, and we quote from the *Palladium*:—

"Next the hose was lengthened out to 1,500 feet, extending from the tannery to the M E church and rising hills variously estimated at from 75 to 100 feet in height and through this quarter of a mile of hose a stream was forced through an inch and an eighth nozzle which reached to the roof of the building, or a horizontal stream of 85 feet The engine at this time showed 125 pounds of steam pressure and 260 pounds water pressure on the hose. (The average steam pressure during the five hours the engine was being tested was 80 to 85 pounds) It was a terrible test—one that the engine would never be asked to make in actual service—and the result exceeded all expectations."

The last number of the *American Machinist* contains an illustration of this engine, and designates it as being "one of the most improved types of American steam fire engines," and characterized by all that elegance of design and finish, and strength in its working parts, for which the steam fire engines of this country are noted, "also stating that "the peculiar advantages of this build of engine are quick steaming, steadiness and force of water supply and ability to play during the largest and fiercest conflagration without stopping to take up lost motion. The steady stream of a rotary engine is much easier on hose than the pulsating stream of a reciprocating engine, and the jet falls and remains with pressure where directed, without throwing the pipemen round."

We also notice by the *Daily News*, of Griffin Georgia, that the Stonewall Fire Company No 2 of that place, have purchased a steamer from the Silsby Manufacturing Company The company favored the purchase of a Silsby engine on account of the good service of the fine steamer of No. 1, which has been in use for ten years, and is now in excellent condition.

The Old Story of State Supervision.

In the Albany correspondence of Tuesday's issue of the New York *Herald* we find the following.

The Insurance Department has just completed its twentieth year, and its expenses have amounted to more than $1,100,000. This is exclusive of fees collected from the companies by the legal favorites of the superintendent More than $235,000 have been spent in printing reports, and two-thirds of all these disbursements are chargeable to the second decade. The cost of running the department in its first year was less than $10,000 now it is more than $50,000. For a correct appreciation of these figures it is expedient to compare the corresponding expenses of the Bank Department, which I also have compiled selecting it as one not remarkable for economy, so as to be sure to do no injustice. During three of the twenty years the national banks did not exist, so that its range of operations then was a vast one. And even state banks of issue the savings deposits have increased so prodigiously that the bulk of operations has not shrunk much yet its expenses were less than $500,000 or only 45 per cent of those of the Insurance Department in the same time If the Legislature doubts the accuracy of the foregoing figures, let it order an official inquiry.

Whether the Legislature will or will not doubt the accuracy of the *Herald's* figures is a matter of little consequence The fact is that the expenses of the Insurance Department have been rendered necessary by the legislators who have burdened the statute books with unnecessary laws, the administration of which cost between $70,000 and $80,000 a year There is nothing that approaches an equivalent in the shape of protection to policy-holders or any one else given in return for this enormous outlay, but the chief purpose for which state supervision is maintained, namely, to provide comfortable places for useful politicians is thereby fulfilled.

Notes.

The Senate committee on insurance of the Massachusetts Legislature has under consideration the question of amending the insurance law of the state so as to require the adoption of a uniform policy for fire insurance companies.

The engineer of a steam fire engine in New Haven has invented an attachment for his engine house alarm clock which, at appointed hours opens feed bins and lets the regular amount of food all prepared into the horses' mangers The principle can be applied to the feeding of barn stock.

The Connecticut Legislature has passed a resolution calling for an investigation of the Atlas Fire Insurance Company, of Hartford. Why this resolution was introduced or passed is a mystery. The company according to its statement on file in the office of the Insurance Commissioner, is not only solvent, but has a surplus over all liabilities of $26,982 60.

There is a superstition among the firemen that when a certain number of them dream of fire about the same time, a conflagration is sure to follow very soon. So strong is this belief that some of them prepare for it by hanging their caps and belts on the bed posts. Before the fire one morning it is said that as many as 12 had dreamed something about a fire.

The Fireman's *Standard*, Boston Mass.—The March number of this journal is to hand with a portrait of Chief Engineer John A. Bennett, of Cleveland, Ohio, with a sketch of his career showing meritous service An article on the danger to which the fire alarm wires are exposed from the multiplicity of telephone and telegraph lines—is worthy of attention here and elsewhere. The Boston Council will apply to the State Legislature for power to take all these under its control An account of the Boston 4th district fire department and other matters of interest go to make up a very good number.