

The Patent Sales Agency Business.

Those of our readers who have taken out patents within recent years know something of the extent to which inventors are besieged by various individuals and firms from Maine to the Pacific coast, who are anxious to negotiate the sale of patents, and whose circulars, letters, pamphlets, etc., are many of them skillfully designed to make the unhappy inventor, whose name and address has just appeared in the *Patent Office Gazette*, believe that there are plenty of people who are anxiously waiting for an opportunity to buy his patent and pay fabulous amounts for it, only these persons must be found.

The finding of them is what these patent salesmen propose to do. Their proposition is usually to take the patent in hand and find a purchaser for it, charging a percentage for their services. But the main feature of the business seems to be the fact that the inventor is always required to pay a certain amount of cash, varying with different concerns from five to twenty dollars, as his part of the expense of advertising, traveling, correspondence, etc. It is perfectly safe to say that in a vast majority of cases this payment required of the inventor upon placing his patent in the agent's hands pays not only a part, but all the expenses involved, and leaves a handsome profit to the agent; in most cases probably all the profit he seriously looks for from the transaction.

Sometimes, after a year or so has passed by, the anxious inventor, who has invested some of his cash in "advertising expenses," is informed that the arduous labors of the agent have at last resulted in the finding of a man who wants the right to make and sell the invention in several States, but can only pay for it in land upon which there is some sort of incumbrance to the amount of say fifty to a hundred dollars, varying in different cases. If the inventor will forward the amount to the agent, the sale will be immediately closed.

The significant feature of the whole business is, says the *American Machinist*, and which, from the long experience of the editors of this paper with this class of people, they can verify the truthfulness of, *i. e.*, that the inventor is in every case required to pay something for which he has no assurance of a satisfactory return, and it is easy to see that with the vast number of patents being taken out, many of them by people more or less unused to the ways of the world, the income of these selling (?) agents must be considerable if they succeed in getting payments of small amounts from only a small fraction of the total number of patentees.

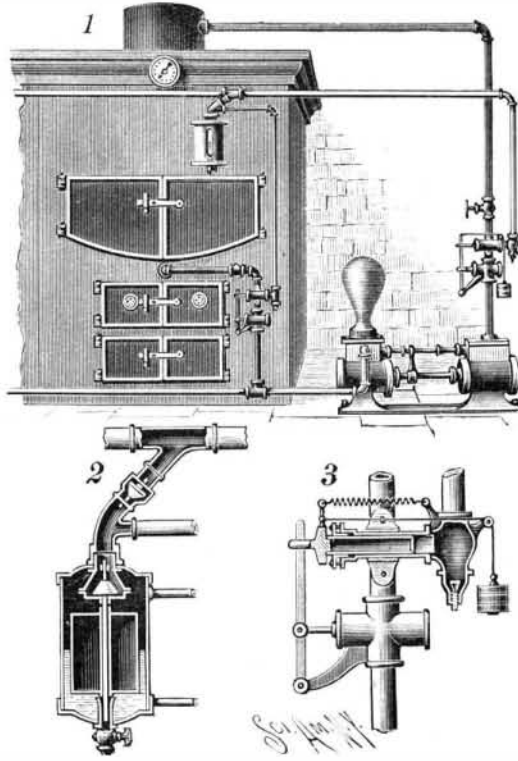
A REFRIGERATOR VEHICLE FOR PERISHABLE ARTICLES.

A vehicle provided with refrigerating compartments especially adapted for the storage and conveyance of milk or other perishable articles is represented in the accompanying illustration, and forms the subject of a patent recently issued to Mr. Charles A. Knight, of No. 98 Sterling Place, Brooklyn, N. Y. In the roof of the rear section is a horizontal partition which forms a top chamber, and bars extend from the partition to the floor of the wagon at the sides. Sheets of zinc or other suitable metal or non-conducting material are secured to the inner faces of these bars and the side uprights, these sheets constituting the sides of the refrigerator and, with the uprights, forming side flues through which air passes from bottom apertures into the top chamber, while the latter has front and rear openings, the air passing through which is designed to create a suction and cause currents of air in the direction indicated by the arrows. A second horizontal partition in the top of the refrigerator proper forms a storage compartment, open at its front end and with an upwardly opening hinged door at the rear. In the front end of the refrigerator is a fixed central perpendicular post, to which are hinged two doors closing against the sides of the vehicle, and centrally in the rear is a removable post constituting the rear wall of an ice chamber, at each side of which are arranged compartments for the reception of baskets or boxes containing the milk cans or other articles to be placed in the refrigerator. These compartments have openings on their inner sides, toward the ice-containing chambers, and they are built up in such manner as to have tracks or slideways in their bottom edges, to facilitate the placing and removal of the baskets or boxes, etc.

The bottoms of the ice receptacles have apertures, the drip from the upper one passing into the lower one, and the latter draining through a tube in the bottom of the refrigerator, passing through the wagon bottom.

AN AUTOMATIC STEAM BOILER FEEDER.

In the accompanying illustration of a boiler feeder, patented by Mr. Bernard Devlin, of No. 327 Grand St., Jersey City, N. J., Fig. 1 shows a front view of one of two or more steam boilers and feed pumps therefor, with the improvement applied. Fig. 2 is an enlarged sectional view of the valved regulating drum or casing and connected steam pipes, and Fig. 3 is an enlarged

**DEVLIN'S AUTOMATIC STEAM BOILER FEEDER.**

view of the steam-actuated regulator device shown in connection with the pump. The drum is connected to the steam and water spaces of the boiler by upper and lower pipes, and is fitted with an ordinary gauge glass. Within the drum is a float having a vertical spindle guided in a tubular bearing at the bottom, and in an upper cross bar or bridge piece and a skeleton bearing, both fixed to a hollow fitting flared downward from the top of the drum, and forming a seat for a conical valve fixed to the float spindle. Suitable collars or washers on the spindle hold the float in proper relation to the valve and its seat, causing the float when lifted by rising water in the drum to close the valve and cut off flow of steam from the upper part of the drum to a pipe leading therefrom. Side holes in the spindle guide near the bottom of the drum give outlet to a blow-off cock for cleaning the drum when desired.

To the pipe leading from the top of the drum is coupled another containing a check valve, a pipe from which is connected to a steam pipe leading to a regu-

drum and each of any number of boilers set up in a battery. These regulators, as well as one to control an injector, are made alike, the regulator in the latter case receiving steam from the drum while a steam pipe connects the steam space of the boiler with the injector, to which is coupled also the feed water supply pipe, which may have a valve controlled by the regulator. A valve may also be fitted into the steam supply pipe from the boiler, near the regulator, to be controlled by the latter simultaneously with its control of the main water inlet valve.

The regulator itself has a hollow rear chamber, from the side of which projects a cylinder, into which is fitted a piston made as a cylinder, closed at its outer end by a head, and surrounded by a packing. One end of the hollow rear chamber is connected to the steam pipe leading from the drum, and to its other end is fitted a check or relief valve, closing by pressure from the pipe, but normally held open by a spring on its stem. A stop device limits the outward movement of the cylindrical piston, and a retracting device is provided, which may be a weight from a cord running over a pulley on the hollow rear chamber and connected to the head of the piston, or a spring connecting the piston head and chamber. By means of certain rod and link connections to the head of the regulator piston, one regulator may operate the main steam and water inlet valves and the steam and water valves of an injector, when the latter is used instead of a pump to feed a boiler.

The operation of this boiler feeder is entirely automatic, and very simple and effective. When applied in connection with two or more boilers, each boiler is fed independently of every other boiler, the check valve of the boiler in which the water stands at the proper level being closed by steam pressure in the pipe leading to the regulator, so as not to prevent the free operation of the drum valve at the boiler, and when all the boilers are filled to the proper water level, the feeding pump will stop, as its valve will remain closed. A similar effect is also produced, through the regulator, in starting and stopping the injector, when the latter is used to force the feed water into the boiler.

The Gypsy Moth.

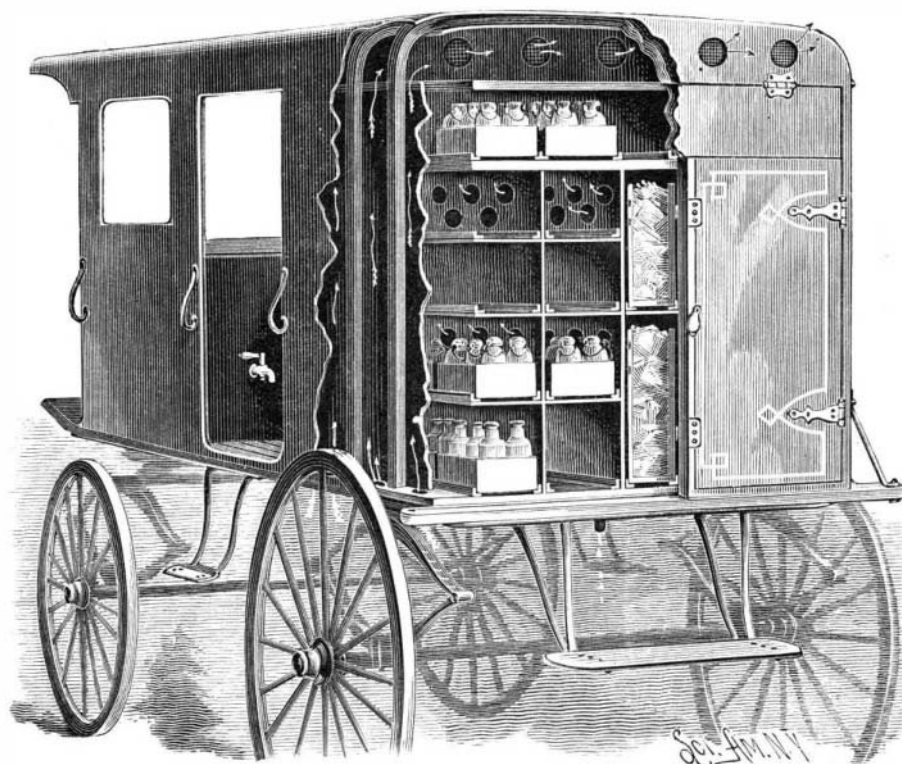
Mr. J. O. Goodwin writes as follows to the *Medford Mercury*:

"I have had quite a little experience with the pest, as in the rear of my premises are three or four large apple trees which have been wholly uncared for by the owner, and the tent caterpillar and gypsy worm have held high carnival there until every vestige of green has disappeared. After devastating my neighbor's trees they *marched in myriads* for my premises, fairly covering the fences, houses, outbuildings, grass-land, current bushes, and concrete driveways with their trooping battalions. I immediately tacked tarred sheathing paper around every one of my trees and keep the paper well coated with printer's ink. The worms will not go over the printer's ink if care is taken to make frequent application of it. Experience, the best of teachers, proves it. During the past week or ten days I have personally attended to the matter and have killed millions of gypsy worms which have congregated below the paper on my trees. The trees nearest my neighbor's land were the first ones attacked (they will not pass a tree), and five or six times a day the trees below the paper are literally covered with thousands of worms, notwithstanding I take great care to kill every worm seen at each inspection, while not a worm can be found on the tree above the application of printer's ink. The number of worms cultivated on the three or four worthless trees on the premises adjacent to my own is astonishing; numbers fail to convey an adequate idea. The grass-land and the earth seemed to be covered with them. In fifteen minutes after killing every worm to be seen on the trunk of the tree below the tarred paper, hundreds can be found making their way up the trunk, to be stopped by the application of printer's ink."

The "Serve" Boiler Tube.

The "Serve" tube differs from the ordinary boiler tube in having eight internal ribs one-half inch in height, in 3 inch tubes, which have the effect of increasing the efficiency of the tubes as heating surface, by absorb-

ing the surplus heat in the gases, as they pass from the combustion chamber to the funnel. Indeed, the extent of tube surface coming into contact with the gases is nearly double that of a plain tube. The inventor, M. Jean Serve, is a native of France, and in that country the invention has already found considerable favor, as it effects an economy of 10 per cent in fuel.

**KNIGHT'S REFRIGERATOR MILK WAGON.**