They stop feeding and lie stretched out on their sides in the cage, becoming emaciated until paralysis is complete. A portion of the spinal cord of those dying on the tenth day is used to inoculate fresh rabbits, and other portions are hung in jars containing potash or other dessicating chemical material. After being in these jars for ten days, it becomes very much attenuated, and is used for the first inoculation of the patients; and each day a solution made from a piece of spinal cord mixed with broth and of increasing virulence is employed, that which remained in the drying jars for 9 days is used for the 2nd injection, that of 8 days for the 3rd and so on until the tenth day the strongest virus is used. Then the person or animal becomes insusceptible to the action of the most rapid virus."

M. Pasteur stated that he had not yet been able to discover the *germ* of hydrophobia, but believed he would yet succeed in isolating it. He spoke of the impracticability of his methods, seeing that the process was so complicated and required specialists to propagate the virus and to be in constant attendance. In order to maintain a uniform standard in the degree of virulence of the inoculation material, experiments on animals have to be made constantly. He though, that in the great centres of each country a laboratory maintained by the Government should be established, and funds be raised, either by subscription or by public grant, to send by rail or otherwise those who could not afford the expenses of travelling to these centres as soon as it is ascertained that they have been bitten by a rabid animal.

Before allowing any patients to be inoculated Pasteur makes full enquiries, through local physicians, and veterinary surgeons, as to whether they have really been bitten by a rabid animal or not, requiring the patient also to bring certificates from them. If the evidence is only partial that such has been its case he allows the patient the benefit of the doubt. The patients do not seem to suffer anything from the operations, appearing to be in perfect health.

The system will doubtless be improved upon after further investigation, but I have no doubt of its effectiveness even as at present practised. Rabbits or dogs receiving the ten inoculations are quite insusceptible to the infection from animals dying of genuine hydrophobia, and this test, is I was told, applied to one or two of the rabbits which are daily inoculated in the laboratory. Over a thousand cases have already been treated, and of these only seven succumbed to the disease, not including the Russians (8) who died from the bites of rabid wolves. France is recognizing the honour Pasteur has conferred by his great cleverness, by the efforts now being made to establish a permanent Institution on a larger scale. The Municipal Council of Paris has granted 2500 mitres of land on Rue Vacquelin as a site, and national, municipal and private subscriptions, as well as donations from foreign governments, are pouring in to be dovoted to the erection of this Institute. For the purpose of establishing a laboratory at any point, a rabbit is inoculated at M. Pasteur's laboratory. As animals will live ten days there is time to reach distant countries, when healthy rabbits are inoculated. The process must be repeated daily in order to propagate and have in constant readiness a continuous supply of the proper degree of virulence.

J. B. McC.

## Progress of Science.

### INGLUVIN.

A very learned name for a remedy is Ingluvin. It is the essential principle of the gizzard, and bears the same relation to poultry that pepsin does to the higher animals. The honor of its discovery and utilization, in its crude state, remotely dates with the Chinese gastronomer, as well as to the Caucasian chemist, in its refined condition. From time immemorial the inhabitants of the Celestial Empire have used the gizzard of chickens and ducks in nearly all made dishes. Their writers have recommended the practice as a sovereign treatment of dyspepsia, weak stomach and vomiting. A favorite prescription of Chinese physicians for chronic indigestion is to cut up and digest chicken gizzards in hot water until they are reduced to a pulp, and then add some spices. A tablespoonful or two of the resulting paste is taken at each meal until the patient has entirely recovered. From China the practice passed to other parts of Asia, and was adopted here and there among the Mediterranean people. Strange to say it was never learned by the great nations of Europe until the latter part of the present century. On the other hand, the organic chemists of Europe discovered, about 1850, a powerful nitrogenous radical in the gizzard. Experiments thereafter showed it to possess many of the qualities of pepsin. These experiments led to its isolation. Numberless experiments have proven it to be a very valuable addition to therapeutics. Where pepsin refuses to act, and where, in severe cases, it has even been rejected by the stomach, Ingluvin effected relief rapidly and with the greatest ease.