## PATENTS, TRADE SECRETS AND TRADE NAMES AS FACTORS IN INDUSTRIAL DEVELOPMENT.

The general conception of our laws relating to patents is that of Statutes of Monopolies. At the present time when monopolies, not comparisons, are odious, even patents, which are often described as the only legal monopolies in the United States, are fast regaining the once notorious reputation of true monopolies, which culminated in the enactment of the famous English Statute of Monopolies. That a patent is not a monopoly (and all that can be said of patents applies equally well to trade secrets and trade names) is readily appreciated when one considers the true monopoly as recognized by the common law. According to Blackstone, a monopoly is defined as "a license of privilege, allowed by the king for the sole buying and selling, making, working, or using of anything whatsoever; whereby the subject in general is restrained from the liberty of manufacture or trading which he had before." A patent, on the contrary, to quote from Robinson on Patents, "lays no burdens upon the people, except that of remaining for a while without that which they never yet enjoyed."
When one recalls the unexampled progress, directly attributable to the inventions of American citizens, which has been coincident with the growth and development of our patent system, even long prior to this era of massive aggregations of capital, he is a poor patriot, indeed, if he does not thrill with pride and lose all thought of the idea of monopolies, as he approaches in turn such epochmaking inventions as the steamboat of Fulton; Stephenson's improvements in the steam engine, including the tubular boiler and the smoke-stack exhaust; McCormick's harvester ; Bigelow's carpet loom; the telegraph of Morse; the pneumatic process first invented by the American, Kelly, for manufacturing Bessemer steel; the Hoe press; the Otis elevator; the Howe sewing machine; Westinghouse's air-brake; the open-hearth steel process of Thomas, at last a substantial rival of Kelly's Bessemer process; the Bell telephone; Edison's incandescent lamp, and the muttitude of others of equal or greater importance.
In addition to the direct influence of the United States patent system, through its patents, upon the commercial expansion of the United States, it is interesting to consider at this time the

Report of the Commissioner of Patents for the year 1848, particularly since the United States is now recognized universally as the greatest agricultural country in the world. This report which, as is evident, was a report of the Patent Office as well as the annual agricultural report, there being no separate department of agriculture at that time, stated:
"Much complaint has been made by inventors on account of a small portion of the Patent Fund employed each year for the agricultural report. And I have heretofore sympathized in such complaint. Mature reflection, however, has convinced me that no injustice is done to the interests of inventors by such an application of the Patent Fund, but, on the contrary, the interests of the Patent Office and of the inventors themselves have been subserved by it.
"The agricultural report of the office, by its wide dissemination throughout the country, has contributed much to increase the reputation and influence of the Patent Office, and to spread more widely among the people a knowledge of the new inventions and improvements which have been made during the year. And thus it promotes the interests of inventors, by contributing to the more rapid introduction and sale of their machines and improvements."

The United States patent system comprehensively protects inventions which are disclosed, through its letters patent, and to a lesser degree, through its caveats, or what might be termed its lettres de cachet, or sealed and undisclosed documents. Similarly its certificates of registration more adequately secure trade marks to their respective owners or proprietors. Trade marks (herein considered as a species of trade names), as well as trade secrets, in addition to the protection afforded by the United States patent system, have long been recognized under the common law as property rights.
While both trade secrets and trade marks are of ancient origin, the legal recognition and protection, under the common law, of trade marks, long preceded that of trade secrets. In fact, it is virtually but a century since the courts have extended their protecting arm to cover the property rights known as trade secrets.

The trade mark is a development of the familiar shop sign. Even the ancient Egyptians are known to have displayed inscriptions denoting their trade in conjunction with an emblem to further indicate it. Also among the ancient Greeks signs were employed to proclaim their calling. In the ruins of Pompeii and Herculaneum discoveries are reported of representations of various kinds, let into the pilasters at the side of an open shop, as, for example, a goat, by a dairy; a mule driving a mill, at the
baker's, and at the door of the schoolmaster's, what has been termed, "the not over-tempting allurement to knowledge," comprising the representation of a boy receiving a good birching. These trade emblems were doubtless introduced into England at the time of the Roman invasion.

Originally, owing to the limited number of traders, the signs were indicative of the trade, and were employed in the same capacity as we now use street numbers. Gradually, however, as competition increased in these particular trades, and the shops became designated by street numbers, the sign-board fell into disuse. Then it was that the trade mark came into active use, being merely in the beginning a transfer, so to speak, from the door of the shop to the article of merchandise.
Even the piracy of trade marks is of early origin, as witnessed by the following preface occurring in Adler's "Livy:"
"Lastly, I must draw attention of the student to the fact that some Florentine printers, seeing that they could not equal our diligence in correcting and printing, have resorted to their usual artifices. To Alder's 'Institutiones Granımaticae,' printed in their offices, they have affixed our well-known sign of the Dolphin wound round the Anchor! But they have so managed that any person who is in the least acquainted with the books of our production cannot fail to observe that this is an impudent fraud. For the head of the Dolphin is turned to the left, whereas that of ours is well-known to be turned to the right."
A critical review of famous trade marks would indeed form an interesting lesson in psychology, and would doubtless supply a fund of useful information to the memory system doctrinaires.
The passage of the Pure Food Laws has been already a boon to the manufacture of pure food, and with the maintenance of quality, their trade marks will ever stand foremost in the minds of the eighty million consumers of this country, who will, it is hoped, never again have occasion to buy standard commodities subject to the doctrine of caveat emptor.
No consideration of the influence of invention upon industry can be complete without a review of the functions of trade secrets. These trade secrets may comprise processes which produce old products that are producible by other known methods in so nearly an identical condition as to prevent the determination of the method of production, even when the products are subjected to the most careful scrutiny. While all of these processes do not necessarily produce products that would invariably reveal whether or not a definite process was employed in their production, never-
theless each one at least requires a particular type of apparatus, of a substantially parmanent nature, so that its indefinite concealment within a plant would be rendered difficult, or else the product produced is of a nature to indicate whether or not a certain patented process has been employed. The Bell process of telephony is an example of a process which, by virtue of the fact that substantially permanent apparatus is required to perform the same, is admirably adapted for the protection afforded by the United States patent system through its letters patent.

A typical example of the type of process which one must perforce protect as a trade secret, or else dedicate to the public by virtue of the fact that it is not susceptible of patent protection, is the process of treating tin scrap, which was involved in the recent case of the Vulcan Detinning Company v. The American Can Company, wherein the process in issue was apparently nonpatentable, and yet extremely useful. It consisted in the employment of old processes in a system of apparatus which was peculiarly arranged as to the disposition of the various elements of the system, and also with regard to the relative distances of each element from certain other elements. In addition, apparently the size of the apparatus and the employment of a steam hammer, as one of the elements of the system, were important features. In spite of the fact that the title of the Vulcan Detinning Company to the process was clouded, by virtue of its having acquired the process from parties who had surreptitiously obtained it from a German manufacturer, the court held that since there was an apparent breach of trust involved in the acquirement of knowledge of the process through a former officer of the Vulcan Detinning Company, that the American Can Company should not only be enjoined, but should account for all profits made thereunder.

No trade secret can be considered as coming under the protection of the common law unless it is really treated as a secret as such, and unless all parties who are cognizant of it, know that it is a secret, and are either employed in a confidential capacity, whereby they are estopped from denying their responsibility of keeping the secret, or are under a contract, oral or written, and express or implied, not to divulge it. It need not, so far as the present status of the law on this subject is concerned, be either new, or sufficiently novel to be patentable.

The influence of trade secrets upon industry has been marked, from the earliest times. The guilds of the middle ages are famed for guarding inviolably their trade secrets. In fact, in
many European countries inventors were often compelled to hold as trade secrets, and assume the risk of their secret being discovered, those inventions which might have been patented, owing to the stringent requirements and high taxes imposed by foreign governments upon patents. In the great steel centers, at the present time, quite a different welcome awaits the rival steel manufacturer, in so far as obtaining access to these mammoth workshops is concerned, as distinguished from the reception which would have been tendered him but fifteen years ago. All specially built and peculiarly assembled machinery, used exclusively within the plant and not purchasable in the open market, as well as all secrets relating to the more economic production of steel, are now carefully guarded.

The ethics of the trade secret, differ only in degree from that of the patented invention, or the trade mark. Each has its own use, and consequently American industry, by the development and perfection achieved by virtue of these incentives, is expanded beyond the fondest dreams of avarice, the laborer benefits because of the higher wages which the manufacturer can well afford to pay him under these conditions, and the consumer receives his commodities and manufactured articles at greatly reduced prices.
It is often a nice question for the manufacturer to determine whether to protect his invention as a trade secret, or to procure a patent thereon. The mere fact that a second inventor may at any time enter the field, and apply for, and secure the grant of, a patent, is a matter of serious import and worthy of the most careful consideration. This has occurred often in the past, and for this reason, it is in some cases advisable to file a caveat in the confidential archives of the Patent Office, renewing it from year to year as its term expires, in order to prevent the issue of a patent to a subsequent applicant, and yet withal avoiding the publication of the secret until such time as the competitor appears in the field. Of course the caveat should contain as full and complete a description as any patent specification, if one would insure himself against the grant of a patent to a subsequent applicant, and since most trade secrets are carefully guarded in some secret archives, commonly of a corporation, it is obvious that no rights are sacrificed by the filing of a caveat as aforementioned.

In respect of the three classes of property rights mentioned, either the manufacturer, the merchant, or the inventor, in some cases has a misconception of; or fails to realize, the protection
afforded by the United States patent system to each property right as aforesaid. The moral effect of a patent, and of a certificate of registration of a trade mark, upon the public generally, and upon competitors in particular, is often of considerable value. This is even true in the cases of what are termed "paper patents" or "paper trade marks," that is, patents and trade marks which are of such a nature as to be almost certain of being ultimately upset in court. When one realizes the time and money often required, under the present administration and enforcement of our patent laws, to defeat a patent or a certificate of registration, is it any wonder that corporations and individuals who are cognizant of this fact, do not hesitate to secure every possible degree of protection for their products, which the common law or the United States patent system affords them? Similarly in the case of the trade secret. There is no question but what the moral effect of a caveat upon the employés and competitors would result in increasing the loyalty of the employe and discouraging the competitor against infringing upon the rights of his rival, who had thus endeavored to protect his trade secret.

Many there are who still believe with the examiner who was appointed to the patent office in 1854, and who upon resigning shortly after declared: "I believe in a little while there will be nothing for the Patent Office to do, as everything is already patented, and I am going to get out of this and engage in some permanent business." It appears to be the same old story that "familiarity breeds contempt." On the other hand the following effective tribute, which is probably the most unbiased and spontaneous that has ever been paid to the United States patent system was delivered by Mr. Karekiyo Takahashi, the special commissioner appointed by the Japanese government to gather data regarding our patent system as practiced in the year 1899. In response to a query as to why the people of Japan desired to have a patent system, he said:
"I will tell you. You know it is only since Commodore Perry in 1854 opened the ports of Japan to foreign commerce that the Japanese have been trying to become a great nation like the other nations of the earth, and we have looked about us to see what nations are the greatest, so that we could be like them, and we said, 'There is the United States, not much more than one humdred years old, and America was not discoveerd by Columbus yet four hundred years ago;' and we said, 'What is it that makes the United States such a great nation?' And we investigated and found that it was patents, and we will have patents."
W. Hastings Swenartor.

