

locality for sapphires in the United States, however, is in the gravel districts near Helena, Mont., and Santa Fe, N. M. Here they occur in the sand, associated with peridot and pyrope garnet. No regular searching for them is carried on. They are found with the associated gems on ant hills, which abound in that district.—*Pittsburgh Dispatch.*

### About Pins.

A statistician has recently made an interesting calculation of the quantity of pins made each day. The manufactories of Birmingham hold the first rank in this industry, and produce daily about 37,000,000; other manufactories in England produce about 17,000,000, giving a daily production of 50,000,000 of pins for that country alone. In France, the works of L'Aigle, of Eugle, and of Paris produce 20,000,000; while those of Holland, Germany, and other countries produce about 10,000,000; so that we may estimate very approximately at 80,000,000 the number of pins manufactured every day, giving 29,200,000,000 of pins manufactured in a year. This quantity represents a value of 11,500,000 francs. Notwithstanding this enormous production, and though pins are never worn out and rarely broken, one often hears the inquiry after a pin, and it is possible that pins can only disappear from circulation by loss. We are led to suppose that 50,000,000 of pins are lost daily. Pins have long been one of the curious examples of results got by division of labor. Each pin passes through the hands of fourteen workmen, and each workman contributes daily to the manufacture of 100,000 pins. Machines have now largely replaced the manual labor. The net cost of a single pin varies from four to six ten-thousandths of a cent.—*The Commercial Bulletin.*

### Why Manufacturers Fail.

The question is often asked, "Why do so many manufacturing establishments fail?" The answer may be very readily given. It is this: A want of practical knowledge of the business by those who have the money invested. A few men who have some money to invest look around and arrive at the conclusion that the manufacture of a certain article is a very remunerative business. They furnish the money, buy machinery and material, employ superintendents and foremen, and go to work. After a year or so they find their money gone and the firm in debt, and they wonder why they did not succeed, when not one of those interested most had the slightest practical knowledge of the work in hand. When they passed through the shops they could not tell whether or not the workmen were doing their duty, whether the machines were in order or adapted to the kind of work they required, or whether there was any unnecessary waste of material, or any superfluous expense. If they saw the machinery in motion they took it for granted that everything was going on right, and they were sure of making a good profit, when at the same time they were actually losing money by little leaks of various kinds.

To be successful, each firm should have at least one practical man who has a thorough

knowledge of the details of the business: one who can, if necessary, take the place of any superintendent or foreman or workman in the establishment, and who devotes his entire time to watching the details. With such an arrangement success is certain.—*American Inventor.*

### The Chinese and Gunpowder.

Dr. Macgowan, in a paper read at a recent session, of the Royal Asiatic Society, affirms the claims of the Chinese to be originators of gunpowder and firearms. This claim was examined in an elaborate paper years ago by the late Mr. Mayers, who decided in the negative. Dr. Macgowan admits that gunpowder as now used is a European discovery. Anterior to its granulation by Schwartz it was a crude compound, of little use in propelling missiles. This says the writer, is the article first used in China. The incendiary materials stated by a Greek historian to have been employed by the Hindus against Alexander's army are stated to have been merely the naphthous or petroleum mixtures of the ancient Boreans, and in the early times used by the Chinese. The stinkpots so much used by the Chinese pirates is, it appears, a Cambodian invention. Dr. Macgowan states also, that as early as the twelfth or thirteenth century the Chinese attempted submarine warfare, contriving rude torpedoes for that purpose. In the year 1000 an inventor exhibited to the then Emperor of China "a fire-gun and a fire-bomb." He says that while the Chinese discovered the explosive nature of nitre, sulphur, and charcoal in combination, they were laggards in its application, from inability to perfect its manufacture, so, in the use of firearms failing to prosecute experiment, they are found behind in the matter of scientific gunnery.

### Recent Legal Decisions.

**BOND—VALIDITY—CLERICAL MISTAKE.**—In the case of Warner vs. Rocher, decided by Judge Gresham in the United States Circuit Court, at Chicago, the figures and words "5000 and — cents in lawful currency," were held good, notwithstanding the clerical mistake of omitting the \$ mark. Judge Gresham said that to hold the bond void for such an omission would be too technical for justice.

**MEASURE OF DAMAGES—INJURY TO GOODS.**—Where goods are injured while in transit the measure of damages is the reasonable market value of the goods at the point of destination at the date at which they should have arrived there according to the carrier's undertaking, less what they were worth at the date when they did arrive in their damaged condition. So held by the St. Louis Court of Appeals in the case of Heil vs. The St. Louis, Iron Mountain, & Southern Railroad Company, decided January 20.

**FRAUDULENT CONVEYANCE—RELATIONSHIP.**—In the case of Caudill vs. Gooble, decided by the Kentucky Court of Appeals on the 29th ult., certain conveyances from a mother to her daughter and son-in-law were held to be fraudulent, the grantor being indebted at the time in

a sum sufficient to swallow up her estate, and the relations of the parties being such that the grantees, who failed to explain satisfactorily how the recited consideration was paid, must have known of the financial embarrassment of the grantor and of the fraudulent design.

**INSURANCE POLICY—INCREASED RISK—WAIVER.**—In an action on a policy of insurance the act of the insurer who has knowledge of the increase of risk by a change of use of the insured premises without objecting to the same or canceling the policy, will be construed as a waiver of his right of forfeiture of the contract by such increase of risk. So held by the Supreme Court of Louisiana in the case of Storey vs. The Hope Insurance Company. The court held that parol testimony was admissible to such waiver, although the policy contained a clause requiring the agreement of the insurer to be indorsed on the policy, and said that if the insurer, after knowledge of the increase of risk, continued to receive premiums, he would be held to have waived the forfeiture.

**FRAUDULENT CONVEYANCE—NOTE AND MORTGAGE.**—Where a note and mortgage were executed for an amount in excess of the actual indebtedness existing from the mortgagor to the mortgagee given in good faith to secure an actual indebtedness, with the understanding that upon the execution of the new note all the credits that were upon the old note should be placed upon the new note, and where such understanding was carried out by the mortgagee, and in the overstatement of the amount secured there was no intent of either party to hinder, delay, or defraud the mortgagor's creditors, the Supreme Court of Kansas held (*Hughes vs. Shull*) that such mortgage was not fraudulent *in toto*, because upon its face it secured an amount of indebtedness in excess of that actually existing from the mortgagor to the mortgagee.

**SUBSCRIPTION—INCOMPLETE AGREEMENT.**—A subscription in these words, "We, the undersigned, hereby subscribe for the amount of stock opposite our names, and agree to pay the same in four quarterly instalments, viz.: February 15, April 15, June 15, and August 15, for the purpose of forming a company to erect an academy of music," was held by the Supreme Court of Georgia to be, on its face, an incomplete agreement, as being entirely silent as to the location and nature of the structure, as to whether the company was to be a joint-stock company or an incorporation, as to what amount was necessary to accomplish the object sought, and as to the mode and method of raising the necessary fund to complete and equip the building, the specific purposes for which it was to be used, and the way in which its business was to be conducted. *Hendrix vs. Academy of Music*, decided February 7.

**CONSIGNMENT—BILL OF LADING—PAYMENT.**—In the case of Ruhl *et al.* vs. Corner *et al.* decided by the Maryland Court of Appeals on the 12th inst., it appeared that the appellees, commission merchants in Baltimore, received a shipment of a car-load of "Champion" flour of 125 barrels from one Merian, of Minneapolis (Minn.), without order. Merian advised the appellees of the shipment by letter, stating the