OBLIGATIONS OF SURETIES.

A bookkeeper, on his appointment in a bank, gave security for the faithful performance of his office, and the bond, after stating his duties in his employment, had the further obligation: "and shall also faithfully fulfill and discharge the duties of any other office, trust or employment relating to the business of the association which may be assigned to him, or which he shall undertake to perform." For seven years he was a bookkeeper, and then he was appointed receiving teller, but gave no new bond. Nine years later he resigned, and it was then discovered that he was a defaulter in the sum of $2,700. An action was brought by the bank on the bond, National Mechanics' Banking Association vs. Conkling, and the sureties defended on the ground that the obligation of the bond did not provide for any liability on their part for a default of their principal in the office of receiving teller, and this defense was sustained. The bank appealed, and the New York Court of Appeals, in October, affirmed the judgment. Judge Earl, in the opinion, said: The recital in the conditions of the bond shows that the principal was appointed to the office of bookkeeper; that he had accepted that office and consented to perform the duties thereof. That was the office brought to the attention of the sureties, and which they had in mind when they executed the bond. The recital in such bonds undertaking to express the *precise intent of the parties controls the condition or* obligation which follows, and does not allow it any operation more extensive than the recital which is its key, and so it has been held in many cases.—*Bradstreet's.*

UNIFORM COINAGE WEIGHTS AND MEASURES.

The *suggestions as to a "Unification of Moneys,* Weights and Measures," by Mr. Alfred B Taylor, are evidently the outcome of painstaking study. As the unit of length, the basis of superficial and solid measure, underlies the weight and value of coin, Mr. Taylor begins by proposing a system of weights and measures for the adoption of civilized nations which will coincide more fully with natural methods of conceiving of size, weight and bulk, than the methods now in use, including the much-vaunted metric system of the French. It is claimed that the metric system, while useful to the accountant, owing to the facility with which computations are made in it, is daily ignored by Frenchmen themselves when measurements are to be made by the artisan, the shopkeeper, the engineer, and in all the departments of the "mart," as distinct from the counting-room This is said to be due to the unnatural method of dividing anything into *fifths, tenths, etc., for practical purposes,* or in conceiving of relative proportions, and it is pointed out that the mind instead instinctively resorts to halves, quarters, eighths and sixteenths, etc., for that purpose. To illustrate, it is pointed out that the French salesman habitually sells halves and quarters of meters in preference to tenths of the same as provided by the national scale. After a number of examples of the inadequacy of the metric system, and of the varied scales of weights and measures common in Great Britain, the United States, Russia, Germany, Austria, Italy and other commercial nations, Mr. Taylor selects the number 8 "as preeminently the fitting number for giving law to the distribution of weights, measures and coins." First, and above all other reasons, because it admits of continued bisection till we reach the unit; second, because it is a perfect cube number, a quality which establishes the most precise and definite relations between linear extension and capacity, and third, because it requires no sub-divisions other than the halves and quarters to give every possible numerical range. With this suggestion as to a base of a unified system, Mr. Taylor proceeds to complete the same, with good claims to satisfactory results. The base of this system remains the inch, 1-36 of the established yard, of which the standard is kept at Washington in the form of a brass rod, a copy of one preserved at London. Each is by law declared the standard yard in length when at a temperature of 62°, Fahr.

The yard, in the abstract, is obtained from the arc measured by a pendulum recording seconds in a vacuum at tide-water level at London, so the base of the system is believed to be permanent enough. The proposed standard linear measure is 16 inches, to be called a "module," being the modulus of the system. The square of this would furnish the base of a table of area, and the cube would give the "modius" or standard of capacity. By octaval subdivisions we gain the eighth of the "module," 2 inches, or the "digit," the eighth of the "digit," or ¼ of an inch, "which may be called the 'dent,'" and the eighth of the "dent," 1-32 of an inch, which it is proposed to call a "line." In like manner the "pondus" may be found in the weight of a cubic "module" of distilled water at maximum density, which would give, by octaval divisions, the cubic "digit" (of eight cubic inches), and may be called an "unce," or new "ounce"; the eighth of this may be called a "dram," one-eighth of a "dram" a "scrap," and the eighth of a "scrap" may be termed a "caret." In applying these tables of weights and measures to the formation of a uniform international coinage, the prequisite contended for is a single gold standard, equally fine, in the various countries which may abide by the proposed arrangement, and with a silver and copper subsidary coinage or currency. As may be readily inferred, the plan contemplates a standard coin nearly corresponding to and which would replace the dollar, the French five-franc piece, and the British pound sterling, one-fifth of which it would nearly equal. This would be supplemented by coins of one-half, one-fourth, one-eighth and so on down to the smallest. The copper coins proposed comprise a quarter penny (½c. nearly), half penny (1c. nearly), and penny (2c. nearly). Those of silver, the quarter bit (4c. nearly), the half bit (7.8c. nearly), the bit (15.58c.), quarter dollar (31.17c.), half dollar (62.35c.), and the dollar, equal to $1,2471. Those of gold are suggested as follows: The quarter real, equal to $2.4943; the half real, value $4.9887; the real, value $9.9774; the quarter eagle, value $19.9548; the half eagle, value $39.9097; and the eagle, valued at $79.8194. Mr. Taylor's idea and the advantage in thus elaborating what he terms the natural order of subdivision and multiplication in coinage may be perceived in the common difficulty of paying for one-eighth of that valued at one dollar, whether it be per yard or per bushel. Either the buyer or seller at present gains the half cent. The advantage of a uniform coinage between the commercial nations of the world, the gain in effecting exchanges, preventing clogs to trade through undue accumulation or loss of coin at one or another center, and other evils to be overcome, are all pointed out. The aid to be furnished the world's commerce by uniform weights and measures would prove hardly secondary.

RAILWAY v. LABOR.

The railways are the workingmen's best friends, for the money of the railways is largely spent in paying wages. What an army of laborers is supported by the construction of new lines merely! It is stated that in the wild territory of Idaho alone, eight thousand men are engaged preparing the pathway for the locomotive; in the fastnesses of the Rocky mountains three thousand are pushing the Denver *& Rio Grande railway westward, the solitudes of Arizona* and the Californian desert are alive with the builders of the Thirty-fifth parallel line; tens of thousands of men are strung along the route of the great Canadian Pacific railway, from Ontario westward through the wilderness north of lake Superior, on over the unbroken prairies of British Columbia and the mountainous regions of the Pacific coast; all through the western states and territories unnumbered thousands more are digging, blasting, filling, bridging and tracklaying, and the money of the enterprising but not always appreciated capitalist supports them and their families. Every working day—taking the average for the year thus far—forty miles of main track are added to the railway mileage of the country, and every day 200 more men are required to operate them. If the total mileage constructed during 1882 shall be 10,500 miles, then about 52,500 men will have been added to the army employed in operating the completed roads; while the new work of construction will still push forward, furnishing work and bread to multitudes. No class of men ought to be so anxious to have the railways prosper as those whose living is obtained from railway employment.—*Railway Age.*

NAVIGATION BY ELECTRICITY.

A new boat propelled by electricity has lately been tried on the Thames River. The hull is of iron, 25 feet long, 5 feet beam, drawing 21 inches of water forward and 30 inches aft. She is a screw boat, the propeller being of the Collis-Browne type, 20 inches in diameter, and with a 3 foot pitch. The screw is calculated to make 350 revolutions per minute. Twelve persons can be accommodated on board, though only four were actually carried on the trial trip. The electric engines are a pair of Siemens' dynamos, of the size known as D3, and their motive power is furnished by Sellon-Volckmar accumulators. These accumulators are a modification of those of Plante and Faure, but are made of specially compact design for the purpose of electric navigation. The cells each contain forty prepared plates, and weigh about forty pounds. They are about 10 inches square and 8 inches high, and are charged while the boat is lying at anchor by wires which come across the wharf from the factory, bringing currents generated by dynamos fixed in the works. There is room for a battery of fifty-four such cells to be stowed away Only forty-five cells were used at the trial trip. They had a total electromotive force of ninety-six volts, and were capable of furnishing continually for nine hours a current exceeding thirty amperes.

When in action the counter-electromotive force of the motors reduces the apparent strength of the current according to Jacobi's well-known theory of electro magnetic engines. The accumulators have a total weight of somewhat less than a ton. The motors of electric engines are arranged so that either or both of them may be furnished with the current, there being a switch to each lead. There is a commutator to switch into circuit any number of cells from forty upward. The boat is very readily stopped. The steering is managed by the same person who operates the switches, seated in the central cabin. The calculated average speed is nine miles per hour. This speed, says *Engineering*, was actually attained on the trial trip from Millwall to London bridge and back.

GOOD PROFITS.—Large oaks from little acorns grow. The *Western Union Telegraph Company*, in their published statement of their assets, put down 2,550 shares of Great North-Western Telegraph stock par value, $255,000; marketable value, $510,000. The charter of the Company was purchased at $25,000, and at this rate their nominal capital of $500,000 is now worth $1,000,000, not a bad thing for the Western Union Company to make inside of one year out of this transaction. The stock that the Western Union took over at $25,000, represented in actual money, paid in about $5,000.

TO MEXICO BY RAIL.—Trains can now be run from Boston across the entire continent to Guaymas, in Mexico, on the Gulf of California in latitude 29, the completion of the Sonora railroad and the Guaymas branch of the Atchison, Topeka and Santa Fe railroad, having opened up this new port on the Pacific coast. The new line besides developing the mineral wealth of that portion of Mexico through which it passes, is expected to inaugurate an important commerce wth Australia and Southern Asia by a shorter route than the present. For the completion of this great enterprise the country is indebted almost entirely to Boston capital and energy.—*Railway Age.*

DON'T TAKE IT TO HEART.

There's many a trouble
Would break like a bubble,
And into the waters of Lethe depart,
Did not we rehearse it,
And tenderly nurse it,
And give it a permanent place in the heart.

There's many a sorrow
Would vanish to-morrow,
Were we not unwilling to furnish the wings,
So sadly intruding,
And quietly brooding,
It hatches out all sorts of horrible things.

How welcome the seeming
Of looks that are beaming,
Whether one's wealthy or whether one's poor;
Eyes bright as a berry,
Cheeks red as a cherry,
The groan and the curse of the heart-ache can cure.

Resolved to be merry,
All worry to ferry,
Across the famed waters that bid us forget;
And no longer tearful,
But happy and cheerful,
We feel life has much that's worth living for yet.

CONSCIENCE MONEY.—An English banker lately received a cash remittance, with a letter explaining that it was the amount of a sum paid by mistake to the writer over the bank counter, with interest from that date. The circumstances of the cash being found short on the day named is well remembered in the bank. The deficiency was £20. It now appears that the individual had got the money he wanted in gold, and suddenly bethinking himself that he would require £20 in silver, asked for it, and forgot to refund the gold. There was a pressure of business at the moment, and it somehow escaped the attention of the cashier that he had not got back the sovereigns. Even when the deficieney was discovered this was never thought of as a possible explanation. It was after the delinquent got out of the bank that it flashed upon his mind that he had got £20 too much. "The devil," he writes, "got the *better of me.*" A similar circumstance is said to have founded the fortunes of a well-known New York politician. Accidentally paid considerably too much at a bank, he never disgorged, but bought real estate.

A RIVAL TO RAILWAYS.—An English project which has for its aim nothing less than a revolution in the inland transportation of merchandise will probably be brought before Parliament for its sanction during the coming winter. It is not the scheme of penniless adventurers, but the well considered enterprise of some of the leading shipowners and merchants of Liverpool, who have already raised a large guarantee fund. The project is designated "The Lancashire Plateway," and broadly stated, the *the proposal is to lay out a series of roadways,* radiating from Liverpool, to the centres of manufacturing industry in South Lancashire, to carry along these roadways a double set of iron plates corresponding in breadth with the wheels of ordinary wagons, to set the loaded wagons on this smooth plateway, and draw them by steam traction engines to their appointed destination. Passenger traffic is excluded from the scope of the scheme; it is confined entirely to goods, and the anticipation is that it will be possible to carry these at a much lower rate than is now charged by the railway companies.

WINNIPEG POPULATION.—The *Globe* recently in answering a correspondent said:—"The resident population of Winnipeg is placed by the Dominion census of last year at 7,985; it is probably about 12,000 now." The Winnipeg *Times* of a late date gives the following:—"The census was taken in April, 1881; since this time the truly remarkable development has taken place. Western cities generally show a disposition to discount the future in a remarkable degree when they estimate their population; but the estimate that Winnipeg at present contains a population of 25,000 will be supported by the assessors' rolls. The accommodation in licensed hotels alone now amounts to 4,000 beds. In round figures, during last year, the assessment rose within the old city limits from seven to thirty millions of dollars. These facts are circumstantial evidence in support of Winnipeg's claim to have a population of 25,000.

FEMALE OIL SPECULATORS.—As nearly as could be ascertained the gallery occupants to-day purchased in the neighbourhood of 250,000 brls. of oil, and the most lucky speculator, the wife of a well-known broker, cleared $6,000 on her day's transactions. Two shop girls found themselves possessed of a "to them" small fortune—$1,200— at the close of business, and other winnings were $1,400 $1,000, and several between $500 and $1,000. Of course there are *losses, and these are borne without a tear*—in public, at least. A society belle drew her check for $800 to a margin on oil she was holding when the market went the wrong way, but she pluckily stuck to it, and has a good show for getting even to-morrow. The speculative fever has struck all classes here. Even the messenger boys fool their earnings, and get a thousand, and the little lads are generally lucky.—*American Paper.*

MORE INTERNAL NAVIGATION.—There is a movement on foot at Bristol, England, to develop and utilize the waterways connected with that city for the transportation of freight between that city, London, and the western and midland counties. This project is considered significant, *coming as it does at a time when Manchester is agitating* a scheme for gaining a freight waterway to the sea; and it is thought the latter city may now claim the privilege of a waterway inland. Already heavy goods are shipped from London by canal more cheaply than by rail. The prospect for the canal is good.