UNCLE SAM'S MONSTER GUNS

The Huge "Peacemakers" Built at the Watervliet Arsenal.

MANUFACTURE OF MODERN ORDNANCE

The Largest Single Building for Work of Machinery in the World—How Present Methods Differ from the Old Way.

On the west shore of the Hudson river, between the cities of Troy and Albany, is situated the large army reservation known as Watervliet arsenal, which has become prominent within the last few years as the center of manufacture of heavy guns for interior land and coast defense.

The wisdom and expediency of the United States army making its own guns in its own shops, says the New York Herald, had been repeatedly recognized by congress. On September 22, 1888, a bill was passed by congress authorizing the erection of the army gun factory at this place and appropriating for the purpose the necessary sum.

The large factory now fully completed and in operation is probably the largest single building for machinery in the United States, and possibly in the world. It consists of two wings, extending north and south from a main central section. This central section contains the large boiler house and engine room, office and implement room, together with the shrinkage pit. Common to this central section are the large north and south wings, the north wing being 400 feet long and 125 feet wide, and the south wing 400 feet long and 155 feet wide; the total length of the building is 958 feet. The main aisle, forming the principal structure of the building, is seventy-five feet wide and extends throughout its entire length.

In the main aisle of the north wing are the large turning and boring lathes, 98 feet in length, for the 8, 10 and 12-inch guns, and the finishing lathes, 58 feet in length. In the south wing are similar machines for the 12-inch guns, together with the much larger lathes and other equipments necessary for the manufacture of 16-inch guns. The large size of these latter machines necessitated the south wing being made thirty feet wider than the north wing.

Connected with the gun factory, and running at right angles with the building proper, has been built a railroad extending from the Delaware & Hudson Canal company's line on the west, across the arsenal grounds, through the central section and at right angles to the factory proper, to the Hudson river on the east, thus rendering perfectly convenient the shipment of the heavy guns by either land or water.

HOW THE GUNS ARE MADE.

All the heavy guns for land defense manufactured at Watervliet arsenal are constructed on what is known as the "built up system." These heavy guns are designed to be so constructed that the elastic qualities of the metal may be most advantageously utilized, and so that no portion shall be strained beyond its elastic limit at any moment, either while at rest or during fire. The "built up system" has been found to come up to all of these, together with other necessary requirements, and is now used in the manufacture of all heavy guns.

These guns are made of the best forged steel and composed of a main inner tube, constituting the wall of the bore, and extending from breech to muzzle, superposed by forged steel hoops varying in number according to the severity of the strain necessary for the gun to withstand on discharge and the size of the gun. The large twelve-inch breech loading steel rifled cannon is composed of the main tube, nine steel hoops and the trunnion band. Each hoop, after being received in the rough state, is carefully and accurately planed down to the exact form and dimensions required.

At the breech end of the gun, where the strain is most severe, the main tube is surrounded by three rows of these hoops, which number diminishes to one toward the muzzle end of the gun. Each hoop, after being planed down and made ready for shrinkage, is slightly less in its interior diameter than the exterior diameter of the tube or hoop over which it is ready to be shrunk, and of just such a diameter as will make the hoop compress with a known and required tension. This outer coil is then expanded by being raised to a dull red heat, during which progress it is most carefully and accurately measured every few moments. So carefully is this done that a variation of more than .003 of an inch from the prescribed diameter in the base of the shrinkage surface is not allowed.

PUTTING ON THE HOOPS.

When this required diameter, which is such as will make the hoop remain at the required state of tension when at its normal temperature, is reached, it is slipped over the tube, which is hung vertically in the shrinkage pit, to its required position on the tube, and then slowly cooled down.

The tube, with the first hoop or jacket, is then taken from the pit and placed in the special lathe, where it is carefully prepared for the shrinkage of the next hoop. This process is kept up until all the hoops and jackets have been shrunk on. The outer rough surface of the gun is then carefully planed down to the required form and dimensions, and the gun is then ready for the rifling and the placing of the breech mechanism.

The various hoops are hooked together by shoulders to prevent slipping or distortion from the shock of discharge. The expansion of the hoop on heating enables these shoulders to pass and on cooling they are so accurately made as to closely fit and grip each other. This system has been adopted by the majority of the countries of Europe and it will undoubtedly be unsurpassed by any future invention for gun construction.

The cannon manufactured for the service of the United States army are divided, according to their use, into four classes, viz., mountain artillery, field artillery, siege artillery and seacoast artillery.

Mountain artillery is used for fighting in rough and mountainous country, where the conditions governing the fighting make the use of heavy ordnance impracticable. This renders necessary the use of a gun and carriage that must be the lightest and at the same time the most powerful that can be transported. The mountain artillery of our army consists of two or three types of machine guns, together with the 2 and 12-pounder Hotchkiss guns.

The field cannon adopted for army service consists of the 3.2-inch gun, the 3.6-inch gun and the 3.6-inch mortar. The 3.2-inch breech-loading steel rifled cannon is intended for field use with rapidly moving troops and is employed in accompanying cavalry. It fires with a charge of 3½ pounds of sphero-hexagonal powder a 13½-pound projectile a distance of about six miles. These projectiles are made to explode with great energy the moment of coming in contact with any object. The 3.6-inch gun is very similar to the 3.2-inch gun.

SIEGE CANNON.

Heavy field artillery is used in batteries for delivering a vertical fire against troops protected by intrenchments or any other forms of temporary defense. For this vertical or high-angled fire the United States army has adopted the 3.6-inch steel rifled field mortar. The range of fire of that gun is about two miles and with a charge of from eight ounces to one and a half pounds of powder fires a projectile of the same kind and weight as that used for the 3.6-inch gun. This style of gun is only used for close and high-angled firing against temporary defenses, to allow the projectile to do its destructive work behind these defenses in the heart of the enemy.

The siege cannon adopted for the service are the 5-inch siege rifle, the 7-inch howitzer and the 7-inch mortar. These guns are used in attacking and also defending inland fortifications and land fronts of sea coast fortifications. These guns are too heavy for field operations, but are transported over common roads upon their carriages, from which they are also fired. Howitzers are shorter than a cannon, but longer than a mortar, and fire with great accuracy. They are employed principally in demolishing earthworks.

Seacoast cannon, or heavy guns for coast defense, as adopted for the service of the United States army, consist of the 8-inch, 10-inch and 12-inch breech loading steel rifled cannon, together with the 12-inch breech loading steel mortars. These modern high power guns are models of ingenuity and workmanship and the results of long study and scientific knowledge on the part of our army officers. The results of recent tests and records of firing plainly demonstrate that the heavy guns of our own army are superior in every way to the heavy guns of the same caliber adopted by the armies abroad.

Only a faint conception of the size and power of these ponderous weapons of war can be obtained from the statement that a 12-inch breech loading steel rifled cannon is capable of hurling 1,200 pounds of steel a distance of ten miles. At a range of two miles this mass of metal may be made to penetrate twenty-one inches of solid steel, and at a range of from five to six miles this gun is capable of demolishing any protected battleship afloat. To obtain these marvellous results a charge of 480 pounds of brown prismatic powder is used, which forces the projectile with a muzzle energy of 26,000 foot tons and a velocity of 21,000 feet per second, and for these results the breech of the gun has to withstand a pressure of 2,500,000 pounds. The weight of the gun is 127,680 pounds.

Quite as marvellous as the power of these guns is their accuracy of fire, which may be judged from a recent firing at the Sandy Hook proving ground, in which at a range of two miles, the position of the gun being changed after each round and the gun re-aimed, the projectile passed directly through the same hole in the target for three consecutive shots. Under similar conditions no guns of this class in the world have exhibited such accuracy of fire. Mounted on a service carriage invented by two United States army officers of the Ordnance department, the speed of fire is forty rounds per hour.

ACCURACY OF MORTAR FIRE.

The 12-inch breech loading steel rifled mortar is one of the most important factors in our coast defense and a most dangerous enemy against invading fleets. These are short rifled pieces, and are especially for seaport defense. The shell fired from one of these mortars carries a charge of 100 pounds of high explosive, and one of these shots would be sufficient to destroy any navy vessel of whatever type afloat. The high angled fire from this type of gun is more effective than that from high power rifles, and renders the deck of a vessel a sure target for this rifle.

An idea of their accuracy of fire may be obtained from some recent targets taken by army officers with a 12-inch type mortar. The target was laid out at sea in the exact form and dimensions of the deck of the United States ship Philadelphia. Four different series of four shots each were taken at ranges varying from five to six miles. Of the sixteen shots fired thirteen struck squarely within the limits of the deck of the vessel, the remaining three striking beyond the limit, but at such a distance as would have rendered destructive the effects of the explosive charge.

During the last fiscal year there were completed at Watervliet arsenal ten 8-inch, nine 10-inch and nine 12-inch guns, together with ten 5-inch siege rifles, ten 7-inch howitzers and 10 3.6-inch field mortars, besides a large number of 12-inch mortars and 3.2-inch field guns.

CAPACITY OF THE PLANT.

Although this work has kept the army gun factory in constant operation, it has the facilities for turning out about three times as many heavy guns as have thus far been manufactured in about the same length of time; but, owing to the lack of interest on the part of congress in our coast defense during the last few years, the United States army has not been allowed to take advantage of its facilities for manufacturing heavy ordnance and run the gun factory to its full capacity, as should have been done.

A prescribed amount of the last appropriation is to be expended for the manufacture of a type 16-inch gun, which has long been desired both by the artillery and ordnance departments. On the completion of this gun it will be immediately shipped to the Sandy Hook proving ground, where it will receive the thorough test necessary to determine the advisability of adopting it for the service of the United States army. On completion of this test it will without doubt be deemed an important factor in coast defense and a large number will be authorized to be built.

The gun factory is fully equipped with all the necessary machinery for this important piece of work, and steps have already been taken to secure the necessary forgings to start the construction of the most powerful piece of ordnance ever manufactured in the United States, and with the probability that a gun of no greater power ever will be manufactured. This modern high power gun will weigh about ninety tons, and with a charge of 1,060 pounds of brown prismatic powder will hurl a solid steel projectile six feet in length and weighing 2,300 pounds over a range of ten miles.

Up to within three years of the present time were also manufactured in a fully equipped foundry at Watervliet arsenal the projectiles and shells necessary for the field, siege and coast guns of different calibre, but, owing to the great amount of work required in connection with the manufacture of heavy guns, this department was transferred to the Watertown (Mass.) arsenal, at which place are manufactured the heavy and light artillery carriages for the mount of the heavy guns manufactured at the army gun factory at Watervliet arsenal.

CROWNED HEADS.

Their Ages and Their Heirs—A Book Tells the Story.

There is a fat little red book that comes into every considerable reference library at about this time every year with a bursting load of information regarding the nations of the earth and their rulers. This book is the "Almanach de Gotha," says the Globe-Democrat. It contains any amount of information that may be found in equally available form elsewhere; it contains also several hundred pages of facts that never are collected elsewhere in such trustworthy and convenient form—facts relating to the crowned heads of all monarchies, great and small, their families, their ancestors and children and children's children, and their collateral relatives far and near.

Every year the editors of the "Almanach de Gotha" send to the castles and palaces of royalty, wherever accessible, the proof sheets of the pages concerning the ruling families, and none of these pages is published without having been corrected by some princely hand. Consequently, a man may usually rely on what he finds in the "Almanach" about the crowned heads and their kind, although not always, for crowned heads err occasionally, as do uncrowned heads, in matters of family history. On the whole, however, the "Almanach" is about as trustworthy as any book of 1,280 pages could be.

The last "Almanach," received a few days ago from Europe, shows that the oldest reigning prince next to the pope, who is 86, is the grand duke of little Luxemburg, who is 80. Denmark's king is 78; the grand duke of Saxe-Weimar, 78; Queen Victoria and the grand duke of Macklenburg-Strelitz, 77. Three ruling princes have passed 70 in the last year—the duke of Saxe-Meiningen, the duke of Saxe-Altenburg, and the grand duke of Baden. Nine sovereigns are between 60 and 70, seven of them being over 65. Eight sovereigns are in their 50s, six in their 40s, three in their 30s, and three in their 20s. As for several years, Wilhelmina of the Netherlands and Alfonso of Spain are the youngest sovereigns. According to the length of reign, Queen Victoria heads the list with almost sixty years. She is followed by Emperor Franz Josef of Austria with forty-eight years. The grand duke of Saxe-Weimar, the duke of Saxe-Altenburg and the grand duke of Oldenburg have reigned since 1853. Seventeen of the forty European sovereigns have reigned more than twenty-five years, and thirteen less than ten years. In 1894 there was but one change in a throne; in 1895, one; in 1896, none. Of thirty-eight reigning houses in Europe, but twenty-three have heirs in the direct line of succession. Of the heirs to thrones, the prince of Wales, with his 55 years, is the eldest; then comes the crown prince of Denmark, 53 years old; the hereditary grand duke of Mecklenburg-Strelitz, 48; the hereditary prince of Meiningen, 45; the hereditary grand dukes of Luxemburg and Oldenburg, 44. Of the whole number of heirs only twelve are married; six of these have grandchildren.

A curious addition has been made to the diplomatic and statistical part of the little red book. It relates to the national holidays of the countries of the globe. In only a few German states is there any holiday at the anniversary of the emperor's birth. In honor of the shah's birthday, however, the Persians celebrate eleven holidays, and in one principality of India the birthday festivities last two weeks.

EMOTIONS OF OUR LOVERS

Cold-Blooded Science Invades the Sacred Precincts of Sentiment.

THE GRAND PASSION IN A CRUCIBLE

Novel and Interesting Deductions Drawn from a Great Number of Letters Gathered by the Investigator.

For the first time his eventful and varied carere Cupid is playing the role of subject in a laboratory of science. Of all investigations which have ever been seriously made by learned men, says the New York Herald, that which was lately begun by a well known scientist of Washington is without doubt the most novel.

Upon the laboratory note book of a philosopher the writer a day or two ago saw inscribed this heading: "Experimental Study of Love."

The man who is making this interesting study is Arthur MacDonald, who has been called the "Lombroso of America." Few, if any, men of science are better fitted to handle such a delicate subject than is Dr. MacDonald. He has been a student of law, theology, medicine, psychology, psycho-physics, metaphysics, insanity, hypnotism and criminology. His specialty is the study of human nature, both in its normal and abnormal developments.

In his experimental study of love Dr. MacDonald is employing as far as possible what he terms the "natural history method." He has been collecting love letters and various other data relating to romances in real life, tabulating them and studying them as an entomologist would study an anthill, or analyzing them as a chemist would analyze an unknown compound. He has been diligently collecting details of love affairs which have come within his own knowledge or which have been reported to him directly by the persons concerned. All of the letters and other data have been handled with the great care which evidence in such delicate cases demands. All names of persons and places, dates and other references which might in any manner betray the identities of those concerned have been carefully omitted.

WHAT LOVE RECORDS SHOW.

In the doctor's records the love affairs are outlined briefly, only such circumstances as might cause turning points in the careers of the participants being given. The copied letters are interspersed with explanatory notes and deductions. Each case in itself suggests a brief novel, none the less romantic because an experience of real life, and all the more interesting on account of the mystery suggested by the suppression of the identities of the heroes and heroines.

A few cases might be briefly outlined to illustrate the varying moods of the different subjects of the investigation. For instance, Mr. B falls in love at first sight on meeting Miss C. He shortly invites her to drive with the purpose of proposing to her uppermost in his mind. He becomes impatient, however, and calls at her house two days previous to the expected drive. He proposes. She is greatly surprised, cancels the drive and forbids him her house. Commenting on this case, the doctor says that B and C appear to have been well adapted to each other. It is his opinion that B might have won C had he been less aggressive. "It seems to be instinctive in young women," says he, "to reject the impetuous lover, without the least consideration of his character, ability or fitness. B illustrates impetuous love which at the time has little reason and less common sense. He was conscious of these facts all the time, but his impulses and desires were too strong."

WOMEN AFFECTED BY SUPERFICIAL.

In commenting upon this the doctor says that E was poor, with little visible means of support, some of his clothes being threadbare. These so-called superficial things, in his opinion, affect women unconsciously, whether they admit it or not. Long enforced economy in life, he believes, tends to make one too serious in appearance and often in reality. This feeling, he says, can become so extreme in love affairs as to be morbid, which morbidity sometimes results in terrible crimes in persons with morally weak and impetuous characters. There should, says he, be a good-natured disposition on both sides, especially when the course of true love does not run smooth, for sometimes a woman wishes she could love the man who loves her, although she feels it impossible to do so.

Miss F and Mr. G, another couple, had met and corresponded occasionally without the least exchange of sentiment. They became better acquainted at a summer resort, where they walked together almost every day. They frequently quarreled in argument. After one serious quarrel G. went away, but returned in a few weeks to find a great change in Miss F., who now became much less quarrelsome. They appeared to have a stronger feeling for each other and fell in love. Soon they quarreled again, while on one of their customary walks. Both returned from their walk single file. Coming to a barbed wire fence G. held it up while Miss F. passed under. She hesitated before holding it up for G., but finally condescended to do so. She held it too low, causing the back of his coat to be caught and torn. This was the turning point of renewed affection. She relented and repented and love again grew up between them.

Leisure time, in the doctor's opinion, is of great incidental importance so far as love affairs are concerned. In the country, he says, the beauties of nature give a directness to conversation which under other conditions (as at a reception) would not be so natural. This case, in his opinion, illustrates how dependent love is upon what he terms spacious propinquity.

These few cases, given in outline, are sufficient to illustrate the process of recording the various data and the method of drawing the deductions. Of course the doctor must have in mind hundreds of details which for lack of space cannot be given to the reader in order that he may be fully equipped for his diagnosis, so to speak.

SOME STRANGE SENTIMENTS.

The love letters in the doctor's collection, or rather the copied portions are, of course, the most interesting of all the data relating to this experimental study. A few extracts taken at random will indicate the character of the correspondents:

"I want you to feel you can come to me with anything and everything. Keep my soul and I will keep yours."

"Of course, my dear boy, I want to see you, nor do I want the 'civilized, co-degenerate world,' as you term it, to enjoy that pleasure with me. No, dear, I only want you."

"Are you sure you want to see me? Beware! I wonder how it will affect me to see you again?"

"I'm only a mountain pink that grows in out of the way places—hard to reach—not easily taken from its hiding place."

"How I cling to you and wrap myself up in you. I'm a kind of mental chameleon."

"Emotions cannot be got up to order, and I must say you have jarred my feelings in so completely misunderstanding me." In her following letter this correspondent somewhat changes her tune. "I should like to see you. I feel a strong impulse toward you dearest."

"I wish you were here, dear just now. I do not understand myself why my thoughts turn to you, for I did not conceive it possible for my jaded soul to be again aroused with interest. Strange, very strange!"

"And so, dear, you have been 'emotional' in your letters to me. How very obtuse I must be, for I have not noticed any traces of emotion therein. It has been rather a mild, unadulterated sort of emotion, hasn't it?"

"I am in one of my desperate moods when I simply would defy the devil, man, God and do what I pleased. I feel gloriously free."

A young woman in the opening of her letter writes: "Do you know that henceforth I'm going to follow your example and be very moderate and mild in my expressions?" In the conclusion to the same letter she says: "Just come to my arms, dear." In her next letter to the same man she remarks: "I have thought for a long time that woman and fool were synonymous terms, and my own experience confirms the opinion. I have played the part of a first-class idiot. It makes me smile at this moment at my own puerile faith, that I could think that a man cared for me. I think a man would have a more serious task than he would care to undertake in convincing me of it again. Bah! It's all a farce." Her next letter begins: "My dearest boy! I have been repenting my brutal letter to you. Will you forgive me, dear?"

THE EFFECT OF LOVE.

When asked by the writer what suggested the idea of making this experimental study, Dr. MacDonald replied: "It is well known that young men and young women—young men especially, perhaps—very often do foolish things because of love. We have instances of this effect all the time. It is a constant evil, although such cases are extreme. The question is why should such a great amount of suffering and pain be caused by unreciprocated love."

"Have you made any experiments with instruments of precision with the object of ascertaining the effects of love upon the human constitution?"

"Yes. In a number of experiments in which the subjects endeavored to concentrate their minds upon the idea of loving some one, experiencing for the time being the emotions of love, the effect of this concentration was a lessening of the breathing. This effect seems to be more intense than that caused by hatred in normal individuals, but in criminals that of hatred seems to be in excess of that of love. The effect of love, like that of any prolonged excitement, may after a while cause pallor and exhaustion.

"It is generally true, also, that during high tension of feeling the desire for food lessens, perhaps because the system under nervous strain is much limited in its power of digestion and assimilation. Where there is uncertainty as to the outcome of a love affair it is a wearing process. On the whole, love, even of the happiest kind, is not necessarily restful.

"Love has its pathological and its normal sides. True love may have both. The pathological side is temporary as a rule. We say: 'Oh! he will do this and that unusual thing because he is in love.' The first steps of love seem to produce a form of emotional and mental aberration, sometimes manifested in extreme acts, making the person quite beside himself, seeming for a time to have a sudden indifference as to things formerly of interest to him. This sometimes takes the form of extreme melancholia, but this as a rule is only temporary."

"Do you believe that there is a hypnotic force in love?"

"There seems to be such. A young man, by his conversation, manners or appearance, may gain the affection of a young woman. This force appears to overcome woman's usual negative. A woman is naturally negative, as of course you know. In courtship the man says, 'I wish,' the woman says 'wait;' the man says 'immediately,' the woman says 'later;' the man says 'today' and the woman 'tomorrow,' and so it goes."

"Do you believe that there can be such a relation as purely platonic love between two young persons of opposite sex who are not related?"

"Yes, but it is abnormal. I think most specialists who have been brought in contact with phenomena of this nature consider it to be unnatural or abnormal. It is to be discouraged. The question is, how long will the platonic love last. Such cases usually lead after a while to misunderstanding."

"What is your definition of love?"

"We may call love a certain mental and physical state in which we are lost. Thought, feeling, duty, the past, present and future—everything in us—unites with the single idea of another being. True love, of which the poets sing, and which is eulogized by all, has nevertheless many illusions. Two persons can sincerely love each other for a time and yet they may not be adapted at all to be life companions. Lovers are generally convinced that they are the only ones who possibly could cherish each other so. This is an illusion. It simply means that neither has chanced to meet such a person."

"As a criminologist, have you not found love, or supposed love, to be at the root of many social evils?"

"A great deal of crime seems to come indirectly from love. The moral status of the community would be higher if more young people married, and if those who married did so at an earlier age."

"What other reforms do you consider necessary to make love affairs and marriages ideal?"

"There seems to be no proper aesthetical way by which young marriageable people of like interests can frequently meet. Their meetings appear, as a rule, to be accidents. If these accidents happened more often we would have more well matched couples. The married women of society would be the proper ones to develop some remedial scheme necessitating as little machinery about it as possible. In a little town things are more normal than in a large city. Among the lower classes, generally speaking, where there are fewer formalities, there seem to occur a greater number of happy marriages than in the exclusive circles. The conditions should be such that young people of opposite sex might become acquainted when congenial, without seeming to be aggressive."

SUPREME COURT SYLLABI.

Knapp against Jones. Error from Douglas county. Affirmed. Opinion by Judge Harrison.

In an action for damages alleged to have been produced by the negligence of the defendant in the action, if it appears that the plaintiff's failure to exercise ordinary care under the existent conditions was the cause of the injuries, he cannot recover.

2. If from the undisputed facts different minds might not honestly reach different conclusions or draw different inferences without reasoning irrationally, it is not error on the part of the trial court to withdraw the case from the consideration of the jury and order a verdict consistent with the facts.

National Bank of Commerce against Chapman. Appeal from Douglas county. Reversed and dismissed. Opinion by Judge Harrison.

A debtor in failing or insolvent circumstances may prefer one creditor, notwithstanding the fact that it may be to the exclusion of others, and this rule may include relatives of the debtor who are his creditors.

2. If such transfers between relatives be attacked as fraudulent the burden is upon the parties thereto to show the good faith character of the transactions.

3. A son may convey property to his mother in payment of a pre-existing debt to her if such conveyance is honestly made or without fraudulent intent to the knowledge of the mother or participated in by her.

4. Findings and judgment held contrary to the conclusions established by the evidence.

Wood against Roeder. Error from Douglas county. Affirmed. Opinion by Judge Harrison.

As a general rule a misrepresentation which embodies matter of law, is one upon which a party cannot rely, as all parties are presumed, or bound to know the law, but where it is as to the law of another state, or its effect, it is not within the rule and may be fraudulent; and ignorance of the law may be pleaded by the one to whom the misrepresentation is made.

2. Where a warrant issued by a county of one state is purchased in another state, in reliance upon a misrepresentation in respect to the statute of limitations as applicable to the warrant and on presentation and demand payment of the warrant is refused on the ground that it is not a claim which can be enforced, there arises a cause of action in favor of the purchaser and against the party who sold the warrant and made the misrepresentation.

3. The evidence held sufficient to sustain the verdict rendered.

First National Bank of Dubuque, Ia., against McKibben. Error from Dawson county. Reversed and remanded. Opinion by Judge Norval.

In an action by the indorsee of a negotiable promissory note against the maker, its mere production by the plaintiff, duly indorsed, raises a presumption of law that it was transferred before maturity and for value, and the burden is on the defendant to show that plaintiff is not an innocent holder.

2 Held, That the answer fails to state a defense.

3. Evidence examined and held not to sustain the verdict.

Raymond against Miller. Error from Saline county. Reversed and remanded. Opinion by Judge Norval.

In an action by a mortgagee of chattels against a stranger for the conversion of the mortgaged property the petition must set out the facts constituting plaintiff's special ownership. A mere allegation that he has a special ownership, right, title and lien upon and to the property by virtue of a chattel mortgage given to him thereon by a designated person is not alone sufficient.

Drexel against Richards. Appeal from Buffalo county. Affirmed. Opinion by Judge Norval.

The sworn statement of a subcontractor for a mechanic's lien must contain a description of the premises on which the improvement was erected.

2. Such a description is not insufficient if it renders the location of the property susceptible of ready ascertainment by the aid of extrinsic evidence.

3. The account of the items for the materials furnished and labor performed by a contractor or subcontractor, and for which a lien is claimed, and the affidavit thereto attached, should be construed together, and when thus construed they substantially comply with the statute, it is sufficient.

4. A description of property in a statement for a mechanic's lien as the "Bartlett & Downing block, Kearney, Buffalo county, Neb.," is a sufficient description of the premises, especially when there are no rights of third parties to be affected by the lien.

Woods against Hart. Appeal from Douglas county. Decree modified. Opinion by Judge Norval.

A finding on conflicting evidence will not be disturbed unless manifestly wrong.

2. Evidence held to sustain findings in an action for the specific enforcement of a contract for the exchange of property.

3. The burden of proving fraud and misrepresentation in the making of a contract is upon the party alleging it.

4. A stipulation in a contract giving a person the exclusive agency for the sale of the principal's property for an indefinite period does not render such contract void, as being against public policy.

5. The principal could, at any time before sale, revoke the agent's authority, even though the instrument expressly stipulated that the agent's power to sell should be exclusive.

6. A contract for the exchange of property is not void for indefiniteness of description, where the description is such as by the aid of evidence aliunde to enable the property to be identified.

7. Where a contract contains two descriptions of the property to be conveyed, one correct and the other false in fact, the latter should be rejected as surplusage.

Tecumseh National Bank against Best. Error from Johnson county. Affirmed. Opinion by Commissioner Ryan.

A petition of a creditor of a banking association which discloses that another bank as successor of said association had assumed the liabilities upon a sufficient consideration moving from said association, and that the claim of plaintiff was one of said liabilities remaining unpaid states sufficient facts to entitle to relief as against the bank which assumed the aforesaid liabilities.

2. A bill of exceptions must contain all the evidence upon which questions of fact are to be determined, a reference in such bill to evidence to be found by reference to another bill filed in an independent case not being sufficient.

The Tecumseh National Bank against Saunders. Error from Johnson county. Reversed. Opinion by Commissioner Ryan. Norval, J., dissents.

The evidence in this case examined and held not sufficient to sustain the judgment of the district court.

Douglas County against Taylor. Error from Douglas county. Affirmed. Opinion by Commissioner Ragan.

Taylor owned a tract of land lying within the limits of the city of Omaha, in Douglas county. On the north side of his land was a public thoroughfare. The south half of this thoroughfare in front of Taylor's land was in the limits of the city of Omaha. The north half of the thoroughfare in front of Taylor's land was without the limits of the city of Omaha, but within Douglas county. The county made a cut and constructed a fill in the thoroughfare north of Taylor's land the entire width of the street. Taylor sued the county for damages, alleging that by the construction of the improvement in the street in front of his property the latter had been depreciated in value; that in constructing said improvement the county had dug and carried away portions of his land lying outside the limits of said street; had torn down his fences and cut down his trees and used the same in the construction of said improvement, and had appropriated a portion of his land lying outside the limits of said thoroughfare by constructing thereon the base of said fill.

Held: (1) Construing sections 1, 33 and 1a, chapter lxxviii, Compiled Statutes, that it was the duty of the county to work and maintain the north half, and the duty of the city of Omaha to work and maintain the south half of said street in front of plaintiff's property, but that the county and city had concurrent jurisdiction or authority to construct the cut and fill in the street in front of Taylor's property; and that, therefore, the acts of the county in the premises were not ultra vires. (2) That it was immaterial what technical name might be given to Taylor's action; for whether his petition stated a cause of action ex delicto or ex contractu the averments thereof, if true, established the fact that his property had been taken and damaged for public use, and that by virtue of section 21 of the bill of rights he was entitled to compensation therefor. (3) That no legislative enactment was necessary to enable Taylor to maintain his action. (4) That the district court had original jurisdiction to try the claim of Taylor against the county; that it was not a claim required by section 37, article 1, chapter xviii, Compiled Statutes, to be filed with the county clerk of said Douglas county and passed upon by its board of commissioners. (5) The word "claims" in said section 37 has reference only to claims originating in contract express or implied between the claimant and the county.

2. Evidence examined and held to sustain the finding of the district court.

Union Pacific Railroad Company against Doyle. Error from Deuel county. Reversed and remanded. Opinion by Commissioner Ragan.

The defendant in error was a section hand in the employ of the railway company. He and others were hired by one Cochran, a section boss in the employ of the railway company, and they were under his control and direction while working on their section of the railway, and Cochran had authority to discharge the men hired by him.

Cochran and his section men were put to work on a gravel train of the railway company. This gravel train the crew thereof and all the men working thereon, including Cochran and his section men, while at work with the gravel train were under the control, direction and subject to the orders of a foreman named Forrest. Forrest was not invested with authority to hire or discharge the defendant in error. The defendant in error while working on this gravel train was injured, as he alleged, through the negligence of an order given by Forrest and sued the railway company for damages. Held: That as to the defendant in error Forrest was not a fellow servant, but a vice principal.

2. Whether one of several employes of the same master is a vice principal as to his co-employes or whether all are fellow servants is not always a question of fact nor always a question of law; generally it is a mixed question of law and fact and to be determined in any case by the particular facts and circumstances in evidence in the case in which it is presented.

3. The fact that one employe is vested with authority to hire and discharge a co-employe is not conclusive evidence that as to such co-employe he is a vice principal; nor does it follow that one employe is not a vice principal as to his co-employes because not vested with the authority to hire and discharge them.

4. The most satisfactory evidence that one is, as to his co-employes, a vice principal is that his co-employes are under his supervision, his control and subject to his orders and directions.

5. Evidence examined and held (1) to sustain the finding of the jury that the negligence of the defendant in error was not the proximate cause of his injury. (2) Not to sustain the finding of the jury that the negligence of the railway company was the proximate cause of the defendant in error's injury.

Bell against Rice. Error from Lancaster county. Judgment. Opinion by Commissioner Ragan.

Generally where a child renders services for a parent—the family relation existing at the time—the law presumes by reason of the kinship of the parties and such family relation that such services were gratuitously rendered.

2. Such presumption is not a conclusive one and the child may recover the value of the services rendered if the evidence shows that they were rendered under such circumstances as to justify the inference of a contract on the part of the parent to pay for them.

3. Whether the evidence warrants such a conclusion is a question for the jury.

4. A stepfather residing in the state of Illinois became an imbecile; no conservator was appointed for him. At the request of those who had charge of his property and business his stepdaughter caused him to be brought to the home of herself and husband in the state of Nebraska, where he remained until his death, some ninety weeks afterwards. During this time the stepdaughter furnished him boarding, lodging, medicine and medical attendance and such care as his demented condition required. For these services she filed a claim against his estate. Held: That the services rendered to the stepfather were necessaries for which his estate was liable.

5. The defense of the statute of limitations is a meritorious one, but one that may be waived, and if it is not insisted upon in some manner in the trial court it will not be considered here for the first time.

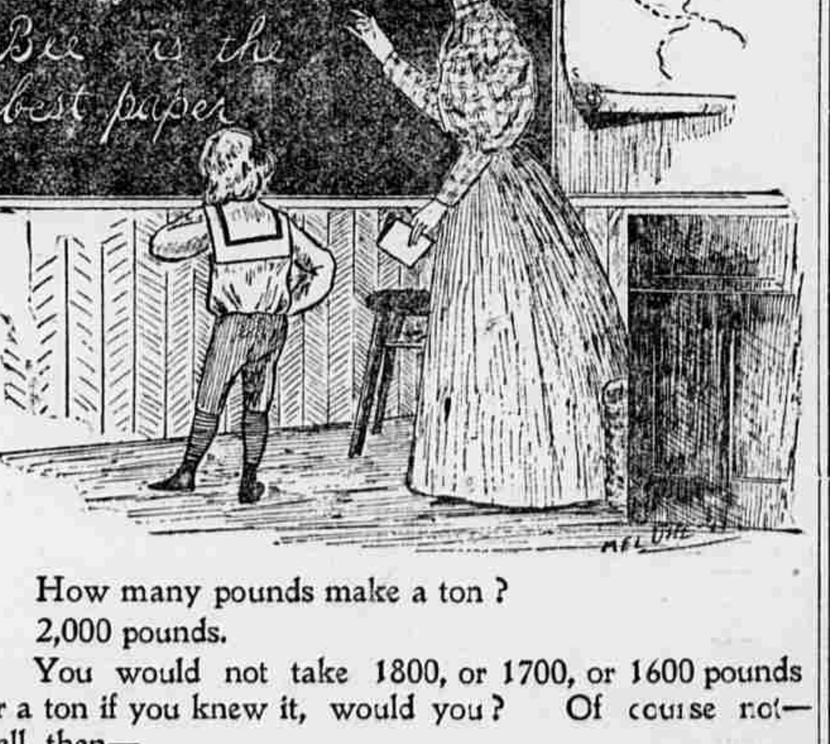
6. A brother gave to his sister his note for $1,000. The brother died and the note was filed and allowed as a claim against his estate, and his administratrix on settling the estate paid said claim in full to the father of her intestate's sister. The daughter was at the time living with her father and the money was paid to and retained by him with her knowledge and consent without any agreement on his part to pay interest for the use of said money or to repay it at any particular time. After the father's death the daughter filed a claim against his estate for this money. Held: (1) That the evidence warranted the conclusion that the money was not a gift by the daughter to the father. (2) That it was not money to which the father was entitled to appropriate to himself by reason of the relation existing between himself and daughter. (3) That the transaction was in the nature of a gratuitous loan to the father. (4) That the money was payable to the daughter on demand. (5) That her father's estate was liable to her for the claim, but as she made no demand for its payment during the lifetime of her father her claim should only draw interest from the date she filed it against the estate.

The Old-Fashioned Knocker.

There has been in recent years, along with an increasing use of the colonial style in architecture, a mild revival of the old-fashioned door knocker, says the New York Sun. And nowadays one may see occasionally a knocker on the hall door of an apartment in an apartment house in this city. A visitor who steps out of an elevator and proceeds along a hall to see, when he reaches the apartment he seeks, a knocker upon the door, may be a little surprised at it at first, but only for a moment; for, despite its modern surroundings, the door knocker stands here, as it does everywhere to one who has been accustomed to seeing it, as the symbol of home.

In at least one instance the door knocker in use on the hall door of an apartment in this city was brought from an ancestral house in New England. In one apartment house in New York door knockers appear upon the hall doors of five apartments, and they are all of different styles. It has been found that friends who come to doors that have door knockers upon them are likely to knock, while strangers and those who come on business errands are morely likely to use the modern electric bell.

LESSONS IN NEWSPAPER MAKING.



How many pounds make a ton?

2,000 pounds.

You would not take 1800, or 1700, or 1600 pounds for a ton if you knew it, would you? Of course not—well, then—

Look at this

object lesson—taking eight pages (the average daily issue) of four newspapers, as a basis:

The Omaha Bee	Columns are 21 7-8 in. long.
World Herald	Columns are 21 3-8 in. long.
Lincoln Journal	Columns are 21 1-8 in. long.
Sioux City Journal	Columns are 19 5-8 in. long.

Each line of The Bee is 13½ ems wide. Each line of the others only 13 ems wide. This short weight doesn't seem much, but in each 8-page paper we have this result—

The Omaha Bee prints	292,010 ems or 697 inches.
World Herald prints	272,016 ems or 622 inches.
Lincoln Journal prints	269,624 ems or 616 inches.
Sioux City Journal prints	250,572 ems or 572 inches.

Don't you see THE BEE gives you 75 inches more space, or 3½ colums, nearly one-half a page more than the World Herald; 81 inches, nearly 4 columns, more than the Lincoln Journal; 125 inches, or about 6 columns, more than the Sioux City Journal? In one week this amounts to more than four pages of the World Herald, and with The Bee's Saturday supplement, eight pages or a whole paper. That's equivalent to eight Bees to seven World Heralds each week, or nine pages more than the Lincoln Journal, or eleven and one-half more than the Sioux City Journal—each week.

This is only the quantity of the news—we'll have lessons on quality later.

DO YOU READ THE OMAHA BEE?