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ADVENTURES OF THREE JOURS.

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CHAPTER II.

PRETTY clever sort of a fellow I judge, exclaimed the General as he turned away from the party and proceeded to the bar *alone*. This rather singular act surprised the party, for previous to this he had never *smiled* without inviting the crowd to join him, and they began to whisper among themselves, 'the General is about broke, else he is getting on a bender.' The latter supposition proved correct, and by ten o'clock that night he was talking more, laughing louder, and making more noise generally, than all the other passengers on board combined.

There was one consolation, however, the deeper the potations, the merrier he grew. And now his liberality returned again. He invited anybody and everybody to drink with him, not only once but several times, and if one refused he seemed to feel really aggrieved. And then he appeared to be everywhere at the same time; in the captain's office, insisting on that worthy taking a drink; at the stove expounding law to the Illinois Judge; down midships, instructing a gaping crowd of cabin boys how to cook beef-steaks and set tables properly; in a word, he was in all places, and talking on all subjects.

"The General is in a splendid condition to have some sport out of now," remarked a small quiet looking man who had come aboard at Cairo, as he drew his cigar from his mouth, and emitted a dense volume of smoke that curled in graceful circles above his head.

"Fine subject for a green-court trial."

"That's so," cried Loring, "let's have him arrested and tried for disorderly conduct. Judge, issue your warrant."

"And I'll serve it," returned the first speaker, "I'll return by the time you can get it ready," and he disappeared in his state-room. Going in the clerk's office, the Judge soon wrote the necessary paper, and just as he returned to the stove, the gentleman who offered to serve it, re-entered by the front door, dressed in a complete policeman's suit, then worn by the force in New Orleans.

"All ready," he exclaimed, "you see I am a regular star, Judge; been up river on duty. Guess I'll surprise the old General somewhat."

Just then the object of their remarks joined the group.

"You see Judge," he said, "the best way to render justice to all mankind in general, is for all mankind to do justice to everybody generally. But let's go and take a drink."

"One moment first," exclaimed the detective. "Your name is —"

"Norval, on the Texan hills my father feeds his flocks. Won't you take a drink too?" and the General put his arm familiarly on the detective's shoulder, while a loud laugh followed his rather apt quotation.

"But I am serious sir," exclaimed the detective, turning full upon him, and taking good care to display the star on his breast. "As you see, I am a policeman, and I hold in my hand a warrant for your arrest."

"Don't say so," returned the General in a voice that gave greater evidence of intoxication than before. "Never were so surprised in my life. Warrant for my 'rest, eh! well, what's the 'fence?"

"That you will learn hereafter; for the present, consider yourself arrested."

"Certainly, I'll 'sider myself 'rested," and he sat down heavily in the nearest chair.

"Keep the prisoner closely guarded until we are ready for him. In the meantime we will proceed to open court in the barber's shop," cried the Judge, as he proceeded thither, followed by the whole crowd.

It did not take long to open the Court. The Judge took the barber's chair, seats were arranged upon the left for the twelve jurymen, and a small table on the right served to accommodate the counsel, a prosecuting attorney was appointed in the person of a lawyer present, and then the prisoner was ordered in.

"Engage a lawyer and defend yourself," said the Judge with becoming dignity.

"Jus' so, Judge," returned the General steadying himself against the back of a chair. "Let's see, my friend," continued he, turning towards Gloner. "You appear like a lawyer, so I'll engage you; and as I always like to keep square with the world here is your fee. Jus' take it, and take good care of it," and unfastening a huge leathern belt from about his waist he handed it to Gloner.

"Although no lawyer," replied Gloner as he took it, "yet I'll do my best for my client."

"Jus' so. Well, you see I am a kind of a lawyer, so I'll help you." "Judge, proceed," and he seated himself, but not without some difficulty.

"Is the prosecution ready for the case?" asked the Judge.

"What case is this to be tried in?" asked the General. "Is it the dative or vocative? I prefer the vocative—*fiat justitia ruat cælum*—which for the special edification of the eminent counsel on t'other side, as well as your honor, I will freely translate in the vulgar tongue—'Be sure you'r right, then go ahead,' as my lamented friend Davy Crocket used to say."

"We will first proceed to empanel a jury. Mr. Sheriff call the names of the jurymen," said the Judge.

As the fifth name was called, a young beardless youth stepped out, when the General exclaimed.

"I 'ject to that boy."

"The boy as you call him is of age," returned the Judge, "but state your objections."

"I only want to ask 'm one question."

"You have the right, proceed."

"Young man," said the General, looking him as straight in the face as possible, and in a tone so serious, that under the circumstances it was really ludicrous, "young man, if you bought a hoss, and paid a big price for him, and found out afterwards that he was balky, or was spavined, or had the heaves, or something of that sort, what would you do with him?" "I'd trade him off as soon as possible," replied the youth. "Young man, your head is level," returned the General. "I withdraw my 'jection, proceed."

The Jury were all empaneled, after an indefinite deal of amusement, through all of which the Judge and General maintained the utmost gravity.

"Mr. Prosecuting Attorney, you will now read the charges preferred against the prisoner," said the Judge, and the gentleman acting in that capacity rose and did so, wherein the prisoner was accused of willfully and deliberately transgressing the laws of good society, by getting under the influence of liquor, and disturbing the peace and quiet of the good steamer *Champion*, etc.

"What does the prisoner say? guilty or not guilty?"

"The prisoner pleads not guilty," answered Gloner. "That's right my boy," answered the General, patting his counsel familiarly on the back. "Not guilty! we'll stick to that all day, and all night too, for that matter."

"Then the case is ready to proceed," said the Judge.

"Mr. Sheriff call up the witnesses."

The scene that followed beggared description; in a word our humble abilities would fail to do it justice. Our friend Gloner distinguished himself by an argument that was pronounced superior to the prosecuting attorney's; or, as the General said, "he sawed that fella' up completely." It was proven by several witnesses that the General was one of an invited party to take the first drink on board the boat, which fact Gloner used with great effect. But it was reserved for the General to cap the climax in his closing speech. It was full of wit and odd sayings, and then delivered in such a style, as to cause peal after peal of laughter to ring through the boat, in which the Judge himself was forced to join on two or three occasions.

"May it please your honor and gentlemen of jury,"

said he, steadying himself by the back of his chair, "I had the very honorable privilege of being born in a poor man's house, and I've held my own well ever since. But, poor as I am, it is my right as an 'merican citizen of the State of Texas, to have justice done me the same as though I owned the Mississippi river, and all the land 'tiguous thereto. Ar'nt that so, Judge?" The Judge, on thus being appealed to, nodded assent. "Jus' so," continued the General. "Well, our mutual friend, Blackstone, says: law is equity, and equity is law, and that bein' the case, I don't care which I take in mine, law or equity, it's all the same to me. May it please 'yer honor, and gentlemen of jury, no doubt, but what you've heard of the man of whom it was said, what he did'ent know would'nt make a primer. Well, I've always been looking for that man; always had a laudable cur'osity to see him, and I'm happy to say my efforts have been crowned with complete success, for I've found him at last; there he sits, Judge, your pros'cuting 'torney. Why, he knows more law than Coke or Lyttleton ever dreamed of, and as for Dan'l Webster, why, in the classical language of the backwoods, 'he's no whar.'"

For a full half hour he addressed the Judge in the most serious manner, which only rendered it so much the more laughable, when turning to the jury he exclaimed, "And now, gentlemen, I wish to say a few words to you, and will preface it with the language of a well known and very practical friend of mine, who, under very similar circumstances, exclaimed. 'Pity the sorrows of a poor old man, whose trembling limbs,'" here he let go the chair with one hand, and attempted to make a gesture, when he lost his balance and slid down, chair and all, but even then he did not lose his wits but drawled out,—"have borne him to the *floor*." After the laughter had subsided, he continued, without attempting to regain his feet. "May it please yer 'onor, I'll submit the case without further argument." "Then I'll proceed to charge the Jury," said the Judge. "All right," returned the General. "I don't care how much you charge them, jus' so its enough to pay for drinks all round."

"Gentlemen of the jury," commenced the Judge, "I have noticed that from the beginning you have paid this case that serious attention which its importance demands, therefore I shall address you briefly. Notwithstanding the very ingenious defense of the prisoner's counsel, as well as the witticisms of the prisoner himself, to draw your attention from the main points at issue, I doubt not but you will remember in your verdict that the charges on which we are trying the prisoner are simply these,—getting intoxicated, and disturbing the peace and quiet of the steamer *Champion*."

"You all understand what peace and quiet is, so I will not dwell on that part of the charge; you also know what getting intoxicated is."

"You can bet all you've got on that, Judge," muttered the General.

"And," continued the Judge, "if the prisoner has done these things, you cannot do otherwise than bring in a verdict of guilty. Therefore, to sum up all the evidence, you have only to decide, has the prisoner got drunk, and has he disturbed the peace and quiet of the steamer *Champion*? You can retire and agree upon your verdict."

"We have already agreed," exclaimed the foreman.

"Silence in Court," returned the Judge. "Let us have the verdict."

"Guilty!"

"Then it only remains for me to pronounce the sentence," said the Judge. "It is the order of this court"—

"That we all go and take a drink," muttered the General, striving to regain his feet.

"Silence," cried the Judge. "It is the order of this court that the prisoner be confined in his state-room for twelve hours and fed on"—

"Calves' head soup and soda-water," put in the General.

"Exactly," said the Judge. "Mr. Sheriff, see the sentence duly executed," and in ten minutes more the General was snoring in utter oblivion, between the sheets of his own bunk.

It was along in the wee sma' hours of morning before the court broke up, so that there was a late breakfast on board the Champion next morning; in fact, the General did not show himself until just before dinner, when Gloner and Loring, being on the hurricane deck admiring the scenery and breathing the fresh air, now warm and balmy, met him, looking as sober and serious as though there was not a particle of fun in his composition.

"Well, General, how do you feel by this time?" asked Gloner.

"I tell you what it is," returned the General, in his most serious tone, "Last night I imagined I owned this steamboat, but this morning I feel as though I don't own a dug-out. But, by the way, did I give you a belt last night?"

"Yes."

"You took good care of it, I hope."

"I threw it in my trunk when I went to bed, and have not thought about it since. I'll go and get it."

He soon returned bearing the belt in his hand. The General seized it, and exclaimed, "you cannot tell how much I owe you. All the fortune I have in the world is in that belt, over ten-thousand dollars."

"I had no idea it was so valuable," exclaimed Gloner, "Else I would have slept but little last night. Don't get on another spree, I beg of you."

"Oh! there's no danger now, I only take these spells about once in three or four years. This one has left me all right; the last one cost me a cool two thousand. But there's the gong, let's go down to dinner, for my long fast has made me ravenous."

That evening Loring got off at Vicksburg, and Gloner was left to pursue his journey to New Orleans.

The scenery soon became more interesting. After leaving the bluffs at Natchez, the low land bottoms of Louisiana stretched out to the west, then came the land with immense sugar plantations beyond, as level as a floor, with huge brick sugar houses in the center, now in active operation,—then came Baton Rouge, with its capitol on the river bank, a neat and beautiful building surrounded with a yard that presented a very wilderness of roses in full bloom, and, finally, the Crescent city itself, low and level, but presenting a magnificent appearance from the decks of the steamer; all these were objects of the greatest interest to our hero, and fully occupied his time and attention. It was but little after sunrise when the Champion affected a landing among hundreds of other boats that crowded the levee two and three deep for miles up and down the river; thousands of stevedores with hundreds of deck hands were busy rolling bales of cotton and "toting" sacks of corn from the boats just arrived, and thousands more were rolling and toting freight on the boats getting

ready to depart; and then the language spoken, he could hear representatives of every nationality in the world, and he could see people from every part of our country. The regular "down easter" with his peculiar nasal twang, the rough western backwoodsman with his ungrammatical provincialism, the aristocratic southerner with his cool quiet tone, and the cosmopolitan with his smile, and nod, and pleasant word for everybody, all met there on the crowded levee, where the commerce of a dozen States was transacted.

"What hotel do you stop at?" asked the General of Gloner, who was leaning over the guards looking eagerly at the bustling throng below him.

"I have no preference for hotels, as this is my first visit to the city," he answered.

"Then I should like to have you go to the St. Louis with me. Most of the crowd go to the St. Charles, which is the most popular, and the most noisy. But for quiet homelike attention and refinement, give me the St. Louis."

"Then I'll go with you, of course; for you could not have given it a better recommendation."

"Very well; let this boy have your baggage, he will take it up all safely; and, Jim," he continued to the boy, "if you get there first, present my compliments to the landlord, and tell him I want my old room for a day or two. We will walk Mr. Gloner, it is not far, and then I want to drop in at a barber's as well as take a cup of *café* at the French market."

"All right," exclaimed Gloner, and in five minutes' more they were walking along the crowded sidewalks of the crescent city, while the perspiration stood in large drops on his forehead, in great contrast to Gloner's condition a week previous. At the French market they drank their coffee, and such coffee as Gloner was forced to confess he had never tasted before. Perhaps this was owing in part to the fact that it was served by one of the prettiest and most vivacious of French girls, to whom the General seemed well known, and who was, of course, a great favorite. Then, after half an hour at a French barber's, they passed up the broad steps of the St. Louis, and in a few minutes more were seated in the quiet of their own room.

(To be continued.)

TREATISE ON THE WOOD-WORK OF CARRIAGES.

INTRODUCTORY.

(Continued from page 5.)

It is well to remark here, that from this epoch, the English carriages began to be distinguished by great simplicity of construction. From this reason they singularly contrasted with the French carriages which were profusely ornamented. For daily or common use, the former were certainly preferable to the latter, and those reasons alone suffice to explain their popularity.

We have under our eyes a treatise upon the construction of carriages, which in reality is only the market prices, published in 1796, by William Felton, manufacturer of carriages in London. This work is illustrated with a great number of carriages of which the bodies, aside from the form of some parts, are absolutely made like those in our day. The panels are framed in simple mouldings, where there is only a little square amulet as they are

usually made at the present time. As to form, one detects in this treatise some models styled Louis XV. This proves that if the French are sometimes inspired by their neighbors over the British Channel, these latter make equally as much of equivalent inspiration on their side.

The treatise of Roubo and the *prix courant* of William Felton bring us down to the French revolution, which marks for the progress of our coach making a time of considerable interest. This industry, like many other arts of luxury, was totally deserted. Resumption took place only at the accession of the imperial government, with some old veterans, who in the meantime had forgotten more than they had learned. The first empire, as one knows, was more occupied in forging cannon than in constructing carriages, and this industry, from the first rank that it held under Louis XV., descended to the fourth. English coach-making, flourishing in a country then privileged by its geographical situation and by the harbors and surroundings that assured it the empire of the seas, continued to be developed, and naturally became first in rank. The two cities, Hague and Brussels, had, as late as 1830, in carriage-making, a greater renown than Paris.

It is only since 1830 that Parisian coach-making has visibly and really regained the ground it lost after 1790. Joinery, however, had not made much progress. Its execution continued to run in the groove of routine. We have under our eyes two drawings of models for a body, executed by a professional wood-workman named Depuis, who, in 1830, gave evening lessons after his day's work, and who passed for one of the most clever in the art of drawing. These plates demonstrate beyond doubt that not only their author knew nothing of drawing, but that he was also ignorant of the first elements. The methods that he taught have nearly all been everywhere practiced by the most advanced.

The joinery of carriages, then, remained plunged in the shades until 1839, the epoch when one of our contemporaries, M. Lablot, twenty-five years old, discovered a practical and very expeditious method for the sweeping of the surface of bodies, by which one can determine with exactness in regard to the structure and the various points necessary. M. Lablot teaches his method in the atelier (workshop), when he works, as in a class he teaches in the evening, with an ardor and enthusiasm which is convincing that he has made a useful discovery. The classes that he formed, of which a great number in turn became teachers, rapidly propagated his method, which was immediately introduced throughout Paris, and since practiced by all joiners in coach-making.

This method of Lablot's is the same in truth which is demonstrated in the work by Roubo, pages 524 and 525, for outlining the lengthened dimensions of the boundary of a berline (carriage); but at that time, the treatise of Roubo was not generally known, and had it been, it is not certain that it would have found interpreters capable of utilizing the principles it contained: moreover his method is some what confused in this particular, and the reader who had not a profound knowledge of the art of drawing, would comprehend nothing. M. Lablot has, therefore, the double merit of discovery and of teaching; and the year 1839, when he began his career, is a remarkable epoch in the progress of wood-work in carriages.

The sweeping of the surface of bodies (*coisses*) as it has been taught by M. Lablot, is a part of the art of drawing, especially for joinery in carriages, as we have

not encountered similar constructions elsewhere, as joinery in building, carpenter work and naval construction. This part is also most important in carriage making, as the good or bad form of the body is solely due to the surface. It is, moreover, most facile to comprehend; every demonstration for the construction limits, or radiates, from one point.

When there is shrinkage in the surfaces, the application becomes a little difficult. The shrinkage perhaps divides or may be distributed in two ways, one in quantities proportioned to the greatness of the surface, or in varied quantities. The first can receive but one solution, but the second admits of an infinity, following the law assigned to the variable quantity. M. Lablot has given also upon this matter some very interesting demonstrations; but the theory of shrinkage, as being generally well understood, has need of being more thoroughly developed than it has been, even to this present day.

The operations upon straight lines and the plans which constitute the most important part of the art of drawing, capable of being applied to carriage joinery, have not yet been demonstrated with the systematic order which distinguishes the most of scientific works of our day, a fault, well understood, of a work upon the subject. It is this void which our treatise is intended to fill, and under this relation we hope that it will render some service even to the most experienced workmen.

Although most bodies may have their surfaces limited by curved lines, these lines are not the result of geometrical drawing; they are simply designed as the contour of an ornament, with no law save that of taste. Certain methods of unity, or leveling, in lines used in architecture, cannot be utilized at all in carriage joinery, such for example, as the harmony of an arc of a circle of a small radius with a straight line whose radius is of infinite greatness.

We shall indicate the means of drawing some curves in the third part, notably, the ninety degrees (*quart de nonante*), made use of in naval construction, and which should also be applied in drawing the lines for the sweeps.

(To be continued.)

THE CARRUS OF THE ANCIENTS.

TRANSLATED FROM THE GERMAN OF GINZROT.

This is the common two wheeled cart, which was destined only for the conveyance of (heavy) loads, merchandise or baggage, and not for that of passengers. The term "Carrus" is not of Latin but foreign origin, for the ancient Roman writers did not employ it; but Julius Cæsar in his Commentaries mentions them in the acceptance of the common word "Plaustrum," used in bringing up the rear-guard and military equipments of the army. Hence, they merely answered the purpose of munition or baggage-wagons to the troops and were designated by the Romans under the appellation of "Impedimenta." The term "Impedimenta," however, is not exclusively applied to the baggage, but likewise to the baggage-wagons themselves, as well as to other conveyances following the army. We nowhere find an allusion to their having been employed as a means of locomotion for passengers in town or country, and whenever Cæsar

alludes to the train of women and children in the wake of the baggage, he invariably mentions the "Rheda" along with the cart; for the former were four-wheeled carriages with a box in the shape of a parallelogram, in which from six to eight persons could be seated, as I shall presently show. The Barbarians (for this was the title bestowed by the Romans upon all foreigners) took their wives and children with them to the field, (the latter always following the army in wagons, which they at night placed in such a manner as to afford them the protection of a redoubt). These people were incited to fresh deeds of valor, in knowing that they had their family [loved ones] with them.

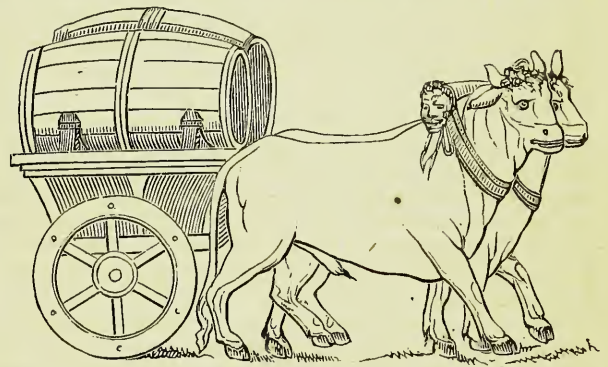
These "Carri" were perfectly well adapted to the narrow defiles of the country, inhabited by the Helvetians; for this very reason they were provided with a narrow gauge, to enable them, and probably their four wheeled "Rheda" also, to pass with safety the numerous mountain passes; for it is evidently easier to construct vehicles to suit the condition of the roads than it is to make the latter adapted to the construction of the vehicles. Julius Cæsar often mentions those "*Vis angustis*" or narrow passes, where one cart could scarcely pass after the other, a fact, which is more minutely illustrated in his *Bell. Gall.*, Lib. I., Cap. 6, and in his *Bell. Hispan.* Cap. 6. In this case, therefore, the broad-gauge track would have been impracticable or very inconvenient. Cæsar (*Bell. Gall.*, Lib. I., Cap. 6) says: "the road leading through the country of the Sequani, betwixt Mount Jura and the river Rhone, was so narrow and difficult to travel that scarcely a single "Carrus" was able to pass over it."

This word (Carrus) may be indiscriminately used in the masculine or neuter genders, and accordingly we say, "Carrus or Carrum." The term seems to be of Gallic origin, and no doubt should read "Karr or Karre," inasmuch as the Swiss of the present day—descendants of the ancient Helvetians—name their wagons, "Karren." The French, in some sections of their country, as in Burgundy and the "Gold Coast," where the primitive wagon of the Gallicans (called, *Char à banc*—wagon provided with benches) has been retained in use, still name their wagons, *Chariot-car*, hence we find *Cabriolet*, *Cart*, *Chariot*, etc. With the old Teutons, a light sporting carriage was called a "Karrette," and a show, or parade-wagon *Karratsch*. In Teutonic ballads of the chivalrous age, we frequently meet with this word. Now-a-days, an old fashioned, lumbering vehicle is derisively styled an old "Karrete." In the Breton tongue the Carrus is called "Kar," and in the Chaldaic tongue "Carron." With the English people, a *Karren* is a *Cart*, a *Wagon*.

Cæsar thought proper to retain the popular nomenclature and to Romanise the same in giving it a Latin final syllable, as the Romans were wont to do. Fabricius, in his "*Bibliographia Antiquaria*," ridiculously retraces the origin of the term. "Carrus to *Quadrus*, quasi a *quatnor rotis*." The Carrus differed from the *Plaustrum* in the following particulars: the box or form could not be removed as in the former case, but was fastened upon the axle-tree; it lacked the broad flooring of planks or boards, which served as a receptacle for certain commodities, when the sides were removed; the wheels were higher as with the common Roman *Plaustrum*; they were more over spoked and not solid like the *Tympana*, which are impracticable in mountainous regions.

There was another Carrus, the box of which was composed of planks. The wheels had eight spokes and were stellated; this Carrus carried casks, which the Romans, engaged in warfare, preferred to leather pipes, for the reason, that certain liquids, such as oil, wine or vinegar could be more conveniently and safely transported in them. Wine and vinegar, so eminently wholesome in hot climes, was served out in rations to the soldiers along with oil to season their greens (herbage) with. This cut is taken from Marcus Aurelius' Pillar, which bears numerous representations of baggage-wagons. The ancients were skilled in the art of sewing their pipes so tightly that no liquid could ooze out from them.

Herodotus, Lib. III., speaks of a sort of pipe or leather tube, which, owing to its width and tremendous length, may well be numerated here. The king of Arabia, yielding to the entreaties of Cambyses to supply with water the army of the latter on their march through the arid desert, caused huge tubes of raw ox-skins to be made in such plenty that he was enabled to conduct water from the Nile to immense reservoirs, built on the very outskirts of those desolate roads, which the army was to traverse, and at a distance of twelve days' journey from that river.

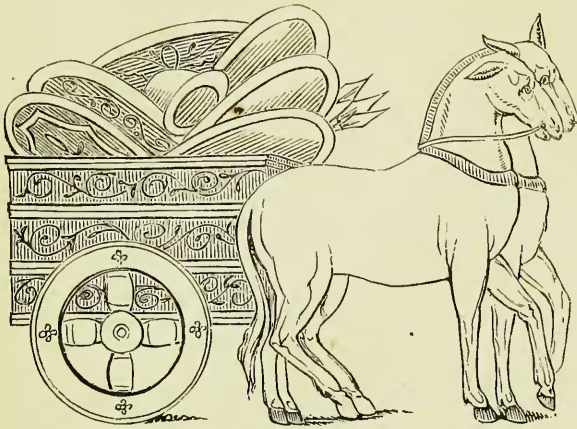


ROMAN WINE CART.

This cut represents a Carrus laden with barrels, lying on crossbeams or rafters; the wheels only have six spokes to them. The yoke being at both of its ends provided with carved lions' heads (a peculiarity quoted in a previous chapter on Yokes) deserves special mention. A well preserved illustration of the same may be seen on the Trajan pillar. Besides, as far as these two carts are concerned, we are at liberty to aver that that kind of casks was not such a rarity with the Romans as Herr von Caylus in his explanation would have us believe.

The next is an illustration of another Carrus taken from the Pillar of Marcus Aurelius. The wheels with but four spokes to them, are rather low; the box in parallelogram shape appears to be encompassed by wooden planks, with ornaments in the form of foliage engraved or painted thereon; the inside space is filled with bucklers and various arms.

This cart is drawn by mules. J. Cæsar in his, *Bell. Gall.* Lib. I., chap. 3, says of the Helvetians: they resolved to provide themselves with all that was necessary for conducting the campaign and to purchase as many "Carros" as possible. They were used for the conveyance of heavy burdens. Sisenna *Histor.* Lib. III. says: They pile up their baggage and shove their "Carros" into one another; and Cæsar de *Bell. Gall.*, Lib. I., Cap. 24, includes the cart among the baggage. The Helvetians



ROMAN BAGGAGE WAGON.

followed with all their carts and piled up their baggage (Impedimenta) on one spot. From this, however, it is not to be inferred that with the Romans, non-combatants were not allowed to avail themselves of this vehicle for the conveyance of their ammunition and burdens; only they were more generally used abroad than amongst the Romans, with whom the "Plaustrum" was more in favor.

That the "Carrus" was not a four-wheeled carriage, as some are inclined to believe, may be gleaned from the "Codex Theodosius de Cursu publico," reading thus: The two-wheeled cart—the "Birota"—must not be laden with over six hundred pounds weight; and further (Leg. 47), where it is enjoined to load the body of the "Rheda" with a thousand pounds, and the "Carrus" with six hundred pounds, no more nor less. We should indeed judge rashly, were we to affirm that for carrying six hundred, more than two beasts of burden and one four-wheeled wagon was required. Three hundred pounds is a light load for a single ox or mule to pull, since any beast of burden may conveniently carry that much on its back. Carts were not only brought in requisition in war-times, but they were likewise used in time of peace on the roads, in the public service, to bring up ammunition for the troops, or the luggage of certain functionaries, who were entitled to the use of a car like the above. In order, however, to prevent an abuse on their part of this immunity, to the detriment of the indigent peasantry (they generally overloaded them), the weight of the load which they were permitted to take with them was fixed by statute, a step resulting in the prevention of arbitrary measures on the part of those favored way-farers, and in enabling the beasts of burden to get along without injury to themselves on the very worst kind of roads.

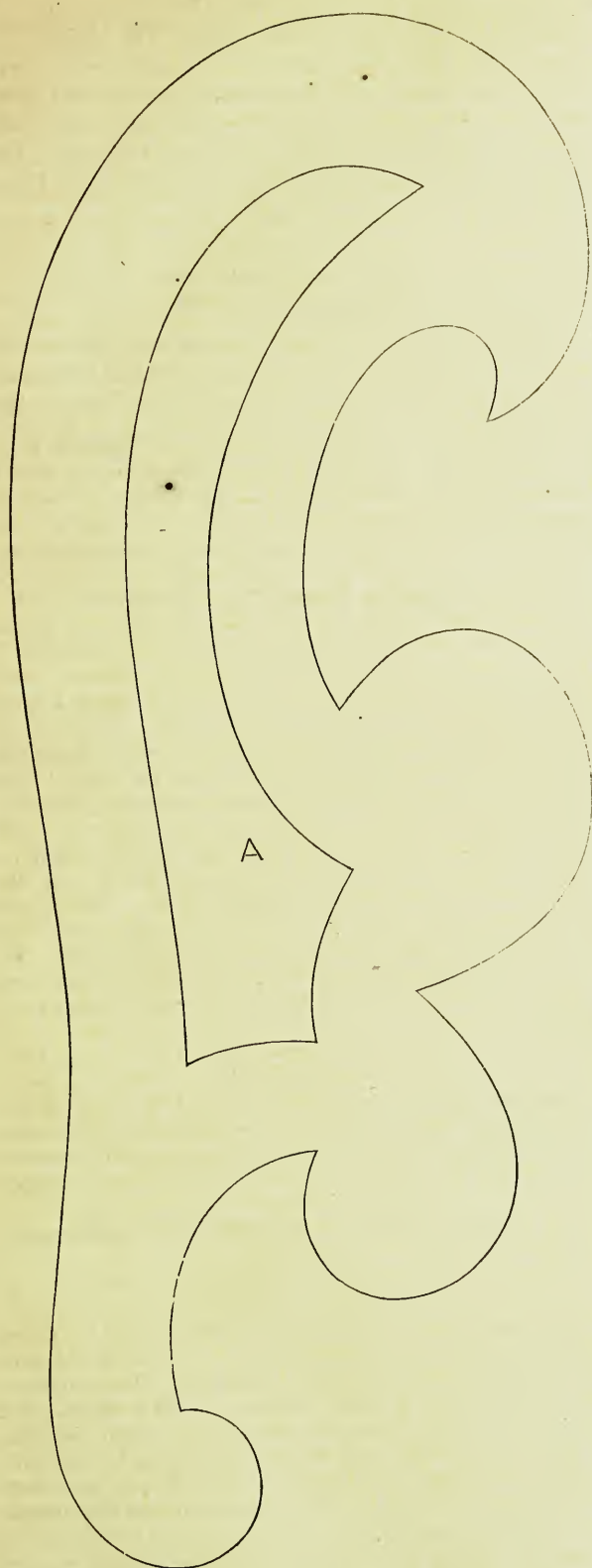
The above mentioned law, moreover, prescribed that public funds, and articles of value destined for presents (*largitionales species*), be no more carried indiscriminately on sundry conveyances or entrusted to the safe-keeping of an arbitrary escort or of the managers, but should be carried on vehicles adapted to such loads. The box had to be closed up all around, unlike those provided with wooden rails, sticks, or a bee-hive (the latter being often full of holes), in order to prevent the scattering of the money, in the event of one or the other of the money-casks or chests bursting open. A cart-load, like the above, was afterwards called, "Carrada," also "Carrata," French

"Charretée." In an ecclesiastic register of the time of Charles the Great, we find: (*de foeno provendarunt Carrades XXX.*) there were sold thirty loads of hay. According to Eckhardt's "*Francia Orientalis*," a cart-load in the eighth century was called Carica; old Teutonic, Fodar; hence we have "Fuder" of wood, wine, hay etc. The Spaniards call a load "Carga," the French "Charge" (Ladung, Last.). It is also used in the signification of "office." In time of war, when the carts, were slid into one another and placed as a bulwark around the camp (the way the Gallicans and Helvetians used to do, according to Cæsar), this was called a "Wagenburg, Carrago or Carragium," to which subject I shall recur in my treatise on War Chariots. According to Ammianus 31, the old (teutonic) Goths in their language, called the "Wagenburg" itself "Carrago." To transport a load was, in the Latin in vogue in the middle-ages, called: *Carriaginum facere*; Caretta or Carecta was the term applied to a two-wheeled cart (a quotation frequently occurring in the Magna Charta); and that of "Caruca" for a four-wheeled carriage. "*S. Carta de foresta IX. : Henry III, §. 14, et de nulla alia carecta vel Summagio aliquo cheminagium capiatur.*" "On no other cart or beast of burden shall my toll be levied." And in Magna Charta, A. D. MCCXVII., "*Pro Caretta ad duos equos (pro cariagio faciendo) decem denarios per diem per Caretta ad tres equos quatordecim,*" ["For a two horse cart (*pro cariagio faciendo*), ten denarius per diem," and for a cart with three horses forty denarius].

Since the "Carrus" was not used as a swift means of locomotion, but merely served for pleasure trips, it was generally (as a reference to all the cuts will show) hitched up with oxen or mules only and not with horses, which were commonly employed in drawing vehicles for passengers. The "Carrus" was put to another use in the conveyance, in the wake of an army of the "Ballisten" and similar heavy ordnance; for this reason these vehicles were styled "*Carroballistas*," of which more in my chapter on War-Chariots. A number of by-words, as, *Carruca, Carrheda* or *Carreta, Carpentum* and others probably took their origin from "Carrus;" and although their shape in the course of time differed somewhat from that of the "Carrus," yet they no doubt, resembled it at first more closely. In quoting the word "Carrus," Matthew Paris says: none of our "*Balliven*" nor "*Viccomes*," or any one else shall employ the "Carreta" for riding-purposes, and in the "*Magna Charta of king John*," Art. 20, said passage runs thus: "*ne Vicecome vel Ballivus regis vel aliquid alius capiat equos vel carretas alicujus liberi hominis pro cariagio faciendo, nisi ex voluntate ipsius.*"

In conclusion I think I am justified in saying that the "Carrus" had no "Tympana," but spoked wheels, which were better adapted for the passage over mountains and through ravines. If this were not so, Cæsar would certainly have mentioned now and then the "Plaustrum" or the "Target-Wheel;" but nowhere in his work on the war in Gaul do we meet with any allusion to this subject. In the monasterial archives of the "Middle Latin Times," we frequently find the word "*Carrus funarius*," a low mason's or bricklayer's cart, which was hoisted by means of a pulley.

WHERE IS THE SCHOOLMASTER?—A "shingle" over the door of a carriage shop on Thirty-second street, in this city, reads thus: "Wagons of every description, made and repaired."



SWEEP FOR SCALE DRAFTING.

SWEEPS FOR SCALE DRAFTING.—V.

THIS month we furnish the reader with another pattern for making sweeps to use in scale drafting. How to transfer this to the veneer, cut out and prepare the thing for use, will be found on page 5. The space A, should be cut out entirely. If properly made from rosewood veneer, it will answer your purpose as well as those found in the stores, and at much less expense.

SCREW-DRIVERS AGAIN.

MR. EDITOR,—I find, in your last Magazine, some remarks from Mr. Peek, in answer to my challenge on the Screw-driver question. I am at a loss to decide whether he accepts my wager, or not. He seems to ask new terms, and claims it as his right, according to the code of the duellist. I do not see as that code applies to this case, but, rather, the rules of the debating club. The arguments upon both sides have been presented, and I am ready for the decision. If Mr Peek wants to present new arguments or evidence, I am perfectly willing that he should do so, and send as many screw-drivers as he chooses. But he says, "I have accepted his challenge." If so, let him send along the five dollars, and three dollars with it, to cover the three dollars I send with this, to pay subscription to *Scientific American*. My challenge still stands, with the addition of three dollars. I am ready for the decision.

BODY-MAKER.

[This article must close the discussion for the present. Should Mr. Peek comply with Body-maker's request, we shall submit the matter for decision, and, when made, publish the result.—Ed.]

SUMMER IDYL.

BY CARRIE M. WHITNEY.

Hush! hush! there is a trembling of melody sweet
Pulsing up from each hill side and leafy retreat.
A murmur, a breath, and a rustling of breeze,
Gently sighing about in the tender green trees.

A music of waters, like silvery bells,
Dripping down, drop by drop, in the deep, mossy dells;
The hum of an insect, the chirp of a bird,
The chatter of squirrels that can scarcely be heard.

There is a faint, subtle fragrance, a perfume of delight
Floating out on the air at the dewy twilight,
An odor from woodlands—a balm from the flowers,
Growing stronger and sweeter with swift coming hours.

Old memories awaken, old yearnings revive,
Absent faces come haunting, some dead, some alive,
Old footsteps reecho thro' the chambers of thought,
And hope sings again, by past failures taught.

O, dear summer voices, how welcome the strains
Of your wanderings, and echoings, and wierd refrains;
How soothing to spirits by sadness oppressed;
How grateful to hearts that are longing for rest!

While I listen, I dream of the far Summer Land,
Till these songs seem an echo of its dear, happy band;
I know that *there* Summers are fading and fleet,
And I'm hast'ning to *that*, its immortals to greet.

SOUTH ADAMS, MASS.

Pen Illustrations of the Drafts.

SIX PASSENGER PARK PHAETON.

Illustrated on Plate V.

In this instance the body is mounted upon scroll and C-springs back, and elliptic in front, making the carriage very easy riding. Our artist, with an eye to the fashions, has adopted the latest improvements from Paris, and accommodated them to American taste with pleasing effect. The sides are "set-off" with half-inch chamfered mouldings; width of body 50 inches; axles $1\frac{1}{4}$ inches; wheels 3 feet 3 inches, and 4 feet high; hubs $4\frac{1}{2}$ by 7 inches; spokes $1\frac{1}{8}$ inches; felloes $1\frac{1}{4}$ inches deep; tire $\frac{5}{16}$ by $1\frac{1}{8}$ inches. *Painting* for a vehicle of this description should be rich, without being gaudy, either black, blue or brown color, with two narrow over one broad stripe, the colors contrasting, with the ground color. *Trimming*, brown satin. The workman's price for building the body in New York is about \$75. The price at which sold \$1,500 @ \$1,600.

ROAD BUGGY.

Illustrated on Plate VI.

OUR artist in his effort to produce something new, has given us something rather eccentric this time. Its oddity may perhaps recommend it some customer, which is often found the case. The side mouldings should be one-quarter of an inch wide, either rounded or chamfered, glued on and beaded. The rule for making this kind of seat will be found on pages 166 and 167, Volume X. Springs, 3 plate, $1\frac{1}{4}$, No. 3 steel, and 36 and 38 inches long. Wheels, 3 feet 11 inches, and 4 feet 1 inch high; hubs $3\frac{1}{4}$ by 6 inches; spokes $\frac{7}{8}$ inch; rims 1 inch; tires $\frac{7}{8}$ by $\frac{3}{16}$ inch. Making the body \$14. Selling price of buggy \$300.

SCROLL PHAETON

Illustrated on Plate VI.

This Phaeton, moulded as it is, in a novel way, makes a very pretty thing for summer driving in the Central Park, in pleasant weather. Drab corduroy of a fine quality makes a very good lining for open phaetons. If lively colors are ever required in painting carriages, we think this is an instance where such may be used to advantage. This being rather "an aristocratic" vehicle, should accordingly have a fancy finish. Wheels 3 feet 11 inches, and 4 feet 1 inch high; hubs $3\frac{3}{4}$ by $6\frac{1}{2}$ long; spoke 1 inch; rims $1\frac{1}{8}$; tires $\frac{5}{16}$ by 1 inch. The workman's charges for making the body is \$25; the sellers price for Phaeton about \$500 with pole, or \$460 without pole.

SHIFTING-TOP BUGGY.

Illustrated on Plate VII.

The coal-box still continues popular with the public,

and is not likely to be discarded, although many predictions of this nature have been made. The cleft side is rather an old idea, but then it serves to relieve the body of that monotony found when the side panel is left plain. It is a common practice now to close the back of the body behind the seat by paneling. Wheels 4 feet, front and back; hubs $3\frac{1}{4}$ by $6\frac{1}{2}$ inches; spokes 1 inch; rims 1 inch deep. Price from \$450 to \$460.

LIGHT TWO-WHEELED TUB.

Illustrated on Plate VIII.

THESE "tubs" are well calculated for the ladies' amusement at a watering place, and no doubt will find favor with the strong minded, when going to the polls, electioneering—should "the tyrant man," ever accord them the privilege of voting. Wheels 3 feet 6 inches high; hubs 4 inches by 7; spokes $1\frac{1}{4}$; rims $1\frac{1}{8}$. Price of vehicle \$225.

Sparks from the Anvil.

TEMPERING TAPS.

To give the correct temper to a tap or reamer is of the greatest importance to the blacksmith. A correspondent of the *Scientific American* says: "To accomplish this, let the blacksmith select his steel for the job, and forge the tap with a little more than the usual allowance, being careful not heat too hot nor to hammer too cold. After the tap or reamer is forged, heat it and hold it on one end upon the anvil. If a large one, hit it with the sledge; if a small one, the hammer will do. During this operation the tap will give away on its weaker side, and become bent. Do not attempt to straighten it. On finishing and hardening the tap it will become perfectly straight. If any are doubtful, a simple trial will convince them.

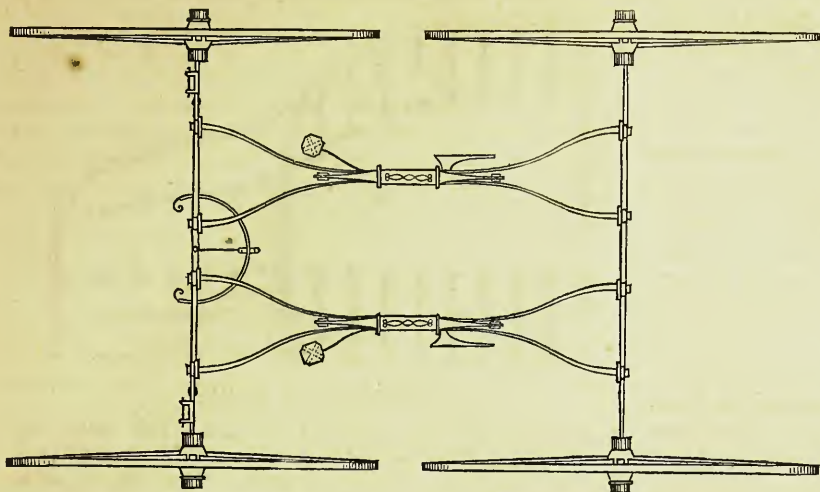
ERRATUM.

In the article on Improved Bending Irons given in the June number, at line eighth, instead of saying "this arm C should be suaged oval," it should read should be suaged square, and the upper end of B and D should be oval shaped.

GAYLORD'S IMPROVEMENT IN CARRIAGE SPRINGS.

Illustrated on Plate VIII.

On Plate VIII. we have given a buggy hung on a new style of spring, dispensing with the perch, although such has been used in connection therewith. The improvement sought for is a side spring of good style, much lighter than the common side spring, and more elastic than the half elliptic with side bars. This spring is very simple in construction, a pair being made of four steel bars, all shaped in one form. The bars being set edgewise in the center give strength with lightness, and the ends being twisted a quarter turn in opposite directions give elasticity, besides bracing sideways and acting as an equalizer when the load is accidentally thrown upon one



BIRD'S-EYE VIEW OF GAYLORD'S IMPROVED SPRINGS.

side. Should the vehicle be overloaded, the two bars forming a spring are pressed together, thus preventing injury from an overweight.

A top buggy with a full seat, on springs weighing only fifteen pounds, two seasons in use, has given the fullest satisfaction. A lighter one may be seen at the manufactory of Rufus M. Stivers, in East Thirty-first street, New York city, by those interested. This buggy was made by Mansuy & Smith, of Hartford, Connecticut, for the inventor, E. L. Gaylord, who is also the patentee, and will sell the whole right. Applicants wishing to purchase will please address E. L. Gaylord, Terryville, Conn.

Paint Room.

FINISHING COAT OF VARNISH.

MUCH has been written of late years on the subject of varnishing, and doubtless much more might be said to advantage, for it is still the fact that the cause of failure lies as often with the operator as with the varnish. This has been proved by experiment where different workmen have taken the article from the same can with quite different results. Probably no varnish sold in this country is of such uniform quality as the English, yet, notwithstanding this, there are many persons who are entirely unable to lay a smooth coat of flowing varnish as it should be done. It is amusing to hear the excuses from some of these unskillful workmen. Not long ago we sent to order a genuine article, purchased in person from "the sole agent," which after being opened and tried by one journeyman was returned as spurious—only American imitation—put, up in English cans to make it sell. We might have been "stuck," but the can having been marked C. O. D., and the express company not having carried out our instructions, by allowing the can to be opened before collecting pay we threw the whole thing on its hands. The company therefore had to pay us, and as a last resort take the varnish back to the shop from whence it last came. Meanwhile another hand had been engaged, and a few months afterwards on visiting the shop referred to, we found the article all used, and it was pronounced the best

English varnish ever spread on a job; the "sole" trouble being with the manipulator.

Success in laying varnish is very much dependent upon the quality of the brush. We believe it is conceded that the flat fitch or bear-hair brush, is the best fitted for laying varnish, and we think none exceed in make those furnished by Mr. Charles D. Thum, of Philadelphia, whose card will be found in our pages. These he warrants to stand, and they are so pointed that they may be immediately put to use, without previous wearing down in painting; a great advantage, since brushes filled with paint—as such unavoidably must be,—cannot be in the best condition for varnishing, afterwards.

In spreading, care should be taken to lay the varnish on as level as possible, and to cross brush the coat when finishing off. To insure success it is absolutely necessary that the brush should be held in the hand perfectly flat and carried over the surface as lightly as possible and make it smooth. Care should be taken to avoid moving the varnish on the under side, since if this is done, it is liable to lose the gloss, and entail much injury on the whole job. Young beginners, specially, are cautioned against letting the varnish run near the top or mouldings. Carrying the hand and brush over the center of a panel heavily, leaves too little varnish there and forces it to the top, bottom, and sides, where it inevitably runs and spoils the whole thing. To spread a nicely flowing coat is difficult with some, but should be the ambition of every painter to arrive at. Those who are competent to spread varnish well, with certain success, have reason to feel proud of their attainment, and as they ought, certainly will command good wages from their employers.

HALF-TINTS IN PAINTING.

THE great difficulty in shading is the management of the half-tints. Any one can make an extreme shade of black; and if the right feeling for half-tints and semi-tones is not a natural one—something analogous to that of a good ear for music—it can be to a great extent acquired, though in some cases it will require a much greater amount of practical experience and observation than in others, before they begin to perceive the many varieties of tone which are spread upon the surface of an object, especially if it be an irregular one. But when we have to add color in connection with light and shade, we go further into a field of change and variety that is unbounded. And here is the test of the painter. It is the management of the minor tones which makes all the difference between a first-class artist, and a common country sign-painter. The latter may paint a red cow sufficiently well to answer the purpose of giving a title to the village ale-house.

We will grant that he has the ability to make a tolerable representation of the animal in outline, when he attempts to paint it he will do nothing more than to fill up the outline with red, and darken the parts in shade with black, because he can see nothing further; but the eye of the true artist would seize upon the innumerable tints spread all over the surface—the various degrees of color

influenced by the position and strength of the light, some parts more brilliant, some more subdued, intermingled with grays of various hues in every portion—added to which are the reflections of color and light among the shadows, some warm, some cold; in short, to name all the changes and tones that would require his especial attention can only be done by him who is able to paint them. Here, then, is the secret why one painter is greater than another; and their comparative excellence is determined by their ability to perceive and represent few or many of the infinite varieties of tones scattered over every object in nature.

A NEW PAINT.

At a recent meeting of the French Academy, M. Sace called attention to the fact that tungstate of baryta forms an excellent white paint, which has as good a tone and depth as white lead, and has the advantage above this of not getting blackened on exposure to the atmosphere. Zinc white, which was tried as a substitute for white lead, has failed, he said, through wanting body. M. Elie de Beaumont remarked that if this statement was confirmed, it would be of great importance; for we have no need to employ special mining operation for tungsten, as this metal is commonly found in company with tin.

WOOD FILLING.

We are in receipt of a note from Messrs. Valentine & Co., stating that "in the Directions for using the Wood Filling we notice one inaccuracy which we fear may mislead some painters. You said that an open grained wood, such as ash, &c., a previous coating of paint must be used. In this you misunderstood us, for the Permanent Wood Filling is intended to penetrate the pores, and this it could not do if there was a previous coat of paint put on."

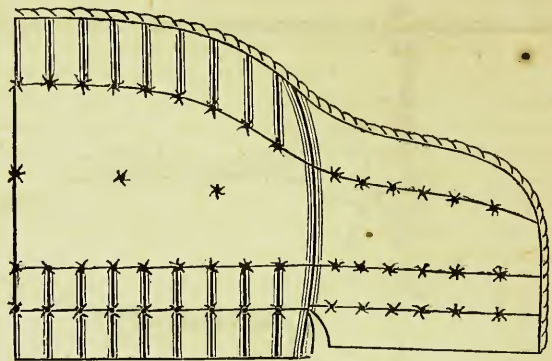
Trimming Room.

LANDAU LININGS.

MR. EDITOR—The trimming of a Landau is a part of carriage building which requires the exercise of good taste, and at the same time a study for the comfort of those purchasers who look as well for that quality as for elegance and style, in the selection of a carriage. The quality and color of the fabrics in trimmings are mere matters of taste; some prefer a well blended assortment of colors, while others delight in loud contrasts, that make a showy and dashing appearance; but this is a matter that does not interest the mechanic.

The trimmer, after fitting his patterns, will mark off places for his tufts; as shown in the following illustration—this being the style most in vogue at present. In this style the trimming is made up loosely, instead of in diamonds or squares. I cannot say that this mode is an entirely new one, but it is the present prevailing taste, and makes a much easier lining than does the diamond or square form.

In marking the pattern for the back, spaces of about two and a half inches should be allowed for tufts from side to side; four and a half inches from top of back to the first row of tufts; a space of about three inches between the



LININGS FOR A LANDAU.

bottom row and the seat, and two and a half inches between this and the second bottom row. In case the back be very deep, three rows are used. The side squab is marked off in a similar manner.

In cutting the goods for such a trimming, an eighth of an inch fullness should be allowed across, and two and a half inches for swell of back. Nothing should be allowed for fullness between the two lower rows of tufts. There are five tufts through the centre of the back, as shown in example. The side lining is made up in the same way, there being the same fullness across, but none from top to bottom, leaving enough, however, on the top to form an arm—there being no arm-rests used but two rows of seeming lace, with pasting lace between, the lace extending around the back as well as the squab. This manner of trimming gives a very roomy appearance to the interior of the carriage.

The cushions are made up in the same style, allowing one-quarter of an inch fullness between each tuft. If the body be very large, with sufficient space for headroom, the trimmer can give one-half inch fullness. Should the bows be set very low, the cushions should be made as thin as possible, compatible with comfort. It will not be necessary for us to say anything about the falls to the seat, as that part is generally understood by all first-class workmen.

The first thing after cutting out the material is to make up the linings, and should be done in this way: First having picked the hair very fine and laid it loosely on the frame, next put a layer of cotton over that, so that the goods will not touch the hair. There are two advantages gained by the use of cotton, as it gives a softer and smoother surface to the lining, as well as a saving in the wear of material, besides imparting to the inside a more luxurious appearance. The trimmer should be particular in working the hair under the cotton, that he does not work it up through the cotton, and, in order to avoid this, he should adopt the French mode, by not using a stuffing stick, which is a characteristic of the American mechanic. If he will adopt this method of working, he will find that it will add much to the appearance of his work when finished.

G. W. P.

[We have the pleasure of informing our readers that we have made such arrangements with a practical trimmer of this city (of which this article is the first installment), that we hope to give new interest to this department, and render it not only instructive but very interesting to trimmers generally. The communication is quite lengthy and has been divided for lack of space. Ed.]

LEATHER CEMENT.—A cement for leather is made by mixing ten parts of sulphide of carbon with one of oil of turpentine, and then adding enough gutta-percha to make a tough thickly flowing liquid. One essential pre-requisite to a thorough union of the parts consists in freedom of the surfaces to be joined from grease. This may be accomplished by laying a cloth upon them and applying a hot iron for a time. The cement is then applied to both pieces, the surfaces brought in contact, and pressure applied until the joint is dry.

Editor's Work-bench.

DISCOURAGEMENTS TO ART.

ARTHUR HELPS, in a recent number of a popular periodical, indulges in a little speculation illustrative of the difficulties the earliest inventor of the wheel underwent from the skeptical around him, and puts into the mouth of an objector the following words:

"We seem to have gone on very well for thousands of years without this rolling thing. Your father carried burdens on his back. The king is content to be borne on men's shoulders. The high priest is not too proud to do the same. Indeed, I question whether it is not irreligious to attempt to shift from men's shoulders their natural burdens. Then, as to succeeding—for my part, I see no chance of that. How can it go up hill? How is one to stop it going down? How often you have failed before in other fanciful things of the same nature! Besides you are losing your time; and the yams about your hut are only half planted. You will be a beggar, and it is my duty, as a friend, to tell you so plainly."

These objections, although not very probable to the minds of those who have studied our pages, yet serve in a great measure to exhibit the great trials and discouragements which almost all ingenious men have experienced on introducing to the world, new discoveries and inventions. How was it with Harvey when he told the people of England how the blood in the human body was forced through the veins by the heart-pump. And did he not as his reward receive the deep-felt scorn of every practical physician in the land? And was he not suffered to pine away in neglect and poverty? Galileo was made to feel the displeasures of the Inquisition by imprisonment for asserting that the earth moved around the sun, instead of the sun around the earth; and Fulton, too, when he launched his first steamboat upon the wave, was laughed at by the crowd as a crazy man. It is only in modern times that inventors have become respectable, by the force of circumstance, although hardly deserving of such honor, when judged of by the value of their productions. Full one-half of the patents obtained now-a-days are comparatively of little worth, and sink into oblivion soon after they are secured. The larger portion of the remainder die in the

inventors' hands, because he never goes to the trouble of advertising and otherwise making his improvements known, being simply content with the short-lived fame he imagines is his for all time.

CABBY.

ONCE in about every four years the cab fever returns to this city, irritating the nerves of a certain portion of its inhabitants. These are generally Englishmen, who, have been led to think that the Hansom cab is the *ne plus ultra* of everything vehicular in the line of public service, and that their introduction must necessarily "run-off" those admitted pests, the common hackmen, against whom common prejudice has instituted *common* warfare in consequence of their *common* dishonesty and lack of justice in public transactions.

Although these *unhandsome* pets have before been tried in this country, and discarded, with loss to individuals, we now find that a "Hansom Cab Company" has been organized in our midst, having for its object their permanent introduction under the protection of a joint stock company. This movement may be successful in one respect, the cabs may be introduced, but success as a paying investment is quite another thing. The fact is Americans could never relish these trans-atlantic tubs anyway, and just now everything English is unpopular, in consequence of England's treatment of us in the Alabama affair, making it extremely hazardous in a pecuniary sense to introduce them now. We predict, therefore, that the company will loose their money.

There has lately been organized another institution which will most likely succeed, and take the place of those nuisances, the hackmen, who have hitherto disgraced the Central Park with their extortionate charges and filthy traps. This new claimant to public favor is a sort of Cabriolet-wagonette, built by J. M. Quimby & Co., of Newark, N. J., capable of accomodating six or eight passengers, at a charge of twenty-five cents each, for the round trip through the Park. These have been furnished by Messrs. Barber, Stuart & Roberts, and although not all that completeness in design would seem to demand, are, notwithstanding this, very convenient and comfortable vehicles for the purpose intended, and a great improvement over those heretofore in use, being hung very low, open at the sides, affording the passenger an interrupted view of the varied and interesting objects which everywhere meets the eye of the visitor to this already famous locality. Strangers who do not wish to be imposed upon by the old hackmen, will find the new candidates for public favor at the south-east corner of the Park, on the Eighth avenue entrance. The drivers have adopted a sort of uniform, not much unlike that worn by our policemen, and are under strict discipline.

THE VELOCIPEDE WAR.

Our last report informed the reader that Stephen W. Smith, the cantering horse man, had sued Calvin Witty, a carriage dealer in this city, for certain infringements upon a patent granted to one P. W. McKenzie, inventor, of Jersey City, which patent he claimed somehow covered that of Lallement, of which by purchase Witty had come in possession. Since that article was written, Witty & Smith, under the influence of self-interest, seem to have come to a mutual understanding, buried the hatchet, and united their resources in a common stock to make warfare in law against all who they conceive have trespassed upon their imaginary rights. We say *imaginary*, for we cannot consider their claims in any other light, since this unlooked for union on the part of the litigants, who probably imagine that their united claims will make out a stronger case and insure success in their warfare with offenders. That which still further weakens our faith in their expectation of final triumph is the fact that instead of asking from the manufacturers a royalty of ten dollars on each machine constructed as formerly, they now modestly offer to take up with half that amount and settle back dues on the same basis. Whether this alliance will render them "masters of the situation," or not, time will prove, *if a case is ever tried*.

Just at this point, however, these claimants have met with unforeseen opposition from a quarter least expected. Those who are supposed to be the victims—the manufacturers of velocipedes—have now formed a combination among themselves for mutual protection—the result of several conferences—engaged legal counsel and contributed to a common fund from which to fight it out on that line to the bitter end. This counsel we learn express the same opinion we have all along given the public—that neither of the claimants, Witty nor Smith, will ever be able to maintain or establish any legal claim to a valid patent, so as to demand damages under the sanction of law. The probability is that the proceedings, now taken on both sides, will kill the whole thing by the time the machines go out of use. Those, therefore, who have taken our advice, and held on to their money, will feel relieved, and should they desire will now have the opportunity for making common cause against their enemies, by association, at a small expense, with their friends in New York, who are willing and ready to receive offers from country manufacturers. Remember that "in union there is strength" and act accordingly.

Since the above was penned, we have received the following in the form of a circular:

OFFICE OF C. VAN HORN & Co.,

No. 31 Chambers Street, New York, June 11th, 1869.

E. M. STRATTON, Esq., 208 Lexington Avenue.

Dear Sir: The undersigned, a Committee appointed at

the National Meeting of Velocipede Manufacturers, held in this City, June 7th, respectfully call your attention to the transactions of that meeting, as herein stated, and solicit your contribution for the purpose specified. (Perhaps a brief account of the origin of the meeting may give information to those whose names were not accessible to the Secretary, and consequently not notified.)

In view of the annoyance and embarrassment felt by Velocipede Manufacturers, relative to numerous patents under which they have been notified to pay a royalty, and under the conviction that the makers against whom the several owners of patents claim payment for the use of certain inventions, have a common interest, and should adopt some concerted action, the New York manufacturers determined, a short time ago, to effect a Union Association, and invite the co-operation of manufacturers all over the country. A preliminary meeting was held in this City on the 24th of May, at which the matter was discussed, and it was moved to adjourn over to the 7th of June, with the view of obtaining further advice on the several patents, and notifying manufacturers throughout the country, inviting them to be present.

The meeting of June 7th has represented fully the manufacturers of New York and other States, and after a full deliberation of all the points to be considered, it was unanimously

Resolved—That of the three patents—the Hanlon, the Lallement or Witty, and the McKenzie or Smith Patents—the Hanlon is the only one the claims of which appear to affect us, and under which there is any justice in the demands made upon the manufacturers, and that it is the only one we acknowledge and pay a royalty to.

Resolved—That it is expedient to raise a fund to which we will contribute; said fund to be held by the Treasurer of the Association and devoted to the purposes of defraying the expenses of any and all litigation which may be instituted against members of this Association, under the Witty or Smith patents, or both of them, with the object of enforcing any royalty to either of said patents.

Resolved—That all manufacturers be invited to enter this Association and pay in to the Treasurer the sum of fifty cents on each and every machine made after March 1st, 1869, when the number made is in excess of twenty, where the number made is less than twenty the sum of ten dollars; that the fund so formed, shall be paid out upon an order of the Committee hereinafter named for the purpose of litigation as before resolved and a true account kept by the Treasurer of all disbursements; that in the event of there being a surplus on hand after the matter of litigation shall have been consummated, it shall be returned to the contributors of said fund *pro rata*.

Resolved—That the Committee hereafter named be instructed to engage eminent Counsel to conduct the defense of such suits as have been or may be instituted by Messrs. Witty or Smith under their patents, and a effort made to expeditiously bring such suits to trial and a final decision.

Resolved—That Cornelius Van Horn, Esq., be the Treasurer of this Association.

Resolved—That T. R. Pickering, G. H. Mercer and C. Van Horn be a Committee to invite membership, engage counsel and conduct the litigation.

You will perceive that by a vigorous and able defence in the matter of the suits first commenced, you will probably be relieved from the trouble and demands of the

owners or representatives of these patents, and avoid the expense of litigation, as the whole question of the right to claim royalty under either of these two patents will be settled by the result of the first suits, while on the other hand, should the parties upon whom proceedings are first commenced *settle*, you would be called upon for the same unjust demand, and should you rely wholly on your own resources and evidence, you would probably at some time have legal proceedings commenced against you and be forced, in order to avoid the whole expense of a suit, to pay a royalty to one or both of these patents.

Trusting that you will see the importance of raising this fund, and that you will cheerfully unite, by communicating with our Treasurer, C. Van Horn, Esq., 31 Chambers Street, New York. We are

Very Respectfully Yours,

T. R. PICKERING, of firm of Pickering & Davis,	} <i>Com- mittee.</i>
C. H. MERCER, " G. H. Mercer & Monod,	
C. VAN HORN, of the Tomlinson, Demarest Co.,	

DEATH OF PETER DUBOIS.

THIS gentleman, who, after a long illness, died of the heart disease on the first day of June, at the age of fifty-four, was for many years engaged in the carriage business, at 202 Green street, New York city. Mr. Dubois was born in Greensburg, Westchester County, New York, and learned the blacksmith's trade in this city with Cornelius Barcalow. Among sporting men Mr. Dubois was a great favorite, his buggies finding a ready sale for racing and other amusements. A great feature in his manufactures was nicety in detail after a pattern of his own, which imparted to them the greatest strength compatible with extreme lightness. Our deceased fellow craftsman was the lessee of the Harlem Lane Race Track, and took a great interest in everything connected with the turf. He leaves behind, to mourn his loss, a widow and one child. His remains were interred in the grounds of the Dutch Reformed Church, in Tarrytown, on the banks of the Hudson.

REVIEW OF TRADE.

CARRIAGE-MAKING during the months of May and June has been unusually dull for this season of the year, generally considered our harvest time. The great reduction in freights, westward, so beneficial to the dry-goods, and some other branches of trade, appears to have had very little effect in stimulating to activity the carriage business. The high prices now ruling for almost every article of consumption, or manufacture, renders it extremely hazardous to undertake anything in the line of speculation, and the stringency in the money market hinders the placing of orders and almost entirely stops the sale of luxuries, such as carriages manifestly are. Nor has the making of velocipedes, in every city of note in the Union, done much for the trade generally. Early in the season some few carriage-builders found a little relief from this source, but

so many other branches of trade went into the business—"on the cheap plan"—that they have already glutted the market and nearly killed the business with their clap-trap machines, so that now there are more sellers than buyers. As the velocipede fever is manifestly on the decline, the probability is that very little relief will be found for trade in that direction, for very soon the thing will dwindle down to the level of a mere toy, fit only for the amusement of boys.

With the exception of two or three establishments in this city, trade is worse than it has been known for several years, and is confined chiefly to repairing. Nothing is more evident of this than the fact that some of the metropolitan establishments have now resorted to advertising as a means of increasing business under the pretext of selling at a greatly reduced price. That some of these advertise at all is quite significant of a derangement somewhere, and an indication of hard times. From the country too we hear loud complaints of the lack of business and need of money altogether discouraging. Unless trade revives very soon, we fear the season will pass by unprofitably, and a hard winter be entailed upon those engaged in carriage-building, such as they have not felt for years. The only remedy we can offer in the case is to advise our friends to be careful and not go too deep into manufacture, thereby increasing their obligations beyond control, at the very time when pecuniary aid is the most difficult to be obtained, and perhaps thereby ruin their credit forever.

TRADE NEWS OF THE MONTH PAST.

OVER in Newark, New Jersey, the other day some sixty masons belonging to a Union struck because their employer, who had at the time only two apprentices, choose to take on another which would then only give him one to every twenty journeymen. This act was more than labor would submit to from capital. Where are we drifting?... The Bricklayers Union in Washington have ordered the eight-hour men in the Navy Yard to strike, unless the two negroes employed there are discharged forthwith. This "bucking" against the darkey, shows the *kind* of liberty labor dispenses to its victims!... The waiters in the principal hotels struck for \$35 per month—they had been getting thirty—and the employers combined too, printed the names of the strikers and refused to employ them again on any terms—so that strike failed of its object. [NOTE.—This strike, so *pompously* undertaken, has ended in throwing the men out of employment (the bosses agreeing never to hire them again), and expending \$3,800 of their accumulated funds. At the last meeting held by the waiters \$700 of this money "disappeared around the table," on which they transacted business, to the utter disgust of the honest portion. Alas! for poor human nature.]... The house framers too demanded fifty cents more per day than they had been getting, but in-

stead of turning out in a body, only about four hundred and fifty men left off work. These, employers refuse to have in their shops again, and consequently that number of Germans find nothing to do, except to reflect upon and mourn over their folly. . . . The clothing manufacturers made an advance list of prices, which if they had secured would have given them twenty-five per cent higher wages, but resulted in half of their number accepting work at the old rates, and the other half going about looking up work (if they can only get it) on any terms.

VELOCIPEDIANA.

MICHANX, a French maker of velocipedes, employs about five hundred workmen. The price of his machines is 300 francs. The French machines are much inferior to those manufactured in this city. . . . Michanx & Co., of Paris employ one hundred and fifty men on velocipedes constantly, turning out five per day. Their machines sell for 350 francs, plain, or 500 francs "in polished iron, with the patented improvements." . . . A late number of *Harper's Weekly* treats its readers to a drawing of a velocipede reversed, on the larger wheel of which a scissors grinder is plying his occupation. This, it is facetiously said, will be the fate of all by-cycles in a few years. . . . Velocipedes are so numerous on the side-walks of New Bedford, that they are a public nuisance to its citizens. The authorities are appealed to abate it. . . . The *Chicago Times* is responsible for the invention of the word "velocambipedextrianism," which is defined to mean swiftly moving by a power skillfully applied with both feet. . . . A journey from Liverpool to London, has lately been performed by two "sports," which was completed in three days. The tourists carried their luggage in carpet bags, strapped to their vehicles. . . . A man in Danbury, Conn., stakes five hundred dollars, that he can construct a velocipede which can outstrip a horse. . . . The one mile race for \$150 velocipede, recently undertaken in Brooklyn, N. Y., was won by Mr. Pickering, on a forty-inch machine, in 5:57. . . . A match was lately made between two donkeys in Hoboken, N. J., the one to run on a machine, the other on four legs; but, it was broken up by the "perilice," when about to be undertaken, to the great disappointment of some Jersey asses, present to see the fun.

EDITORIAL CHIPS AND SHAVINGS.

THE TRIUMPH OF MAXIMILLIAN.—In one of the earlier volumes of this Magazine, reference was made to a book with the title heading this article. This work is said to have been executed in the years 1516, 1517, and 1518, where we are told the "curious readers will find plates of various carriages or cars, some drawn by horses, some by camels, some by stags, and others impelled forward by means of different combinations of toothed wheels, worked

by men." If any of our readers has a copy, we should be happy to purchase it.

AMERICAN WHEELS IN ENGLAND.—We see it stated in some of the newspapers that England is *beginning* to send over orders for our wheels. We can assure these editors that this is no new thing. Ever since the Great Exhibition in London, when they were first introduced, there have been large quantities of both turned hickory spokes and hickory wheels exported to order from the leading coach-builders, and met with great favor. We, ourselves, have filled a great many orders of this kind.

THE POWER CONSUMED BY DRILLS.—Captain Clarinoal, of the Engineers' School, at Metz, has made some elaborate experiments on the resistance of drills, from which he concludes:—(1) That nearly the same power is required to drill hard wrought iron and hard cast steel; (2) the power required to bore soft steel is not much greater than that required for hard wrought iron, but the former increases rapidly with the depth of the hole. Thus, at a depth of five or six millimetres, the power consumed in drilling with soap-suds in soft steel, a hole fifteen millimetres in diameter, is equal to that consumed in boring one of twenty-five millimetres in diameter in hard wrought iron.—*Engineering Eclectic Magazine*.

WHEEL MAKING EXTRAORDINARY.—At a meeting of the Polytechnic Branch of the American Institute, lately held in this city, Mr. J. W. Weston, among other things, exhibited a wheel and hub which he claims to have invented. Although he did not claim originality for the principle, he did for its application, and on this he has secured a patent. The hub and wheel are made up of a series of cross grained veneers, which being placed in a cylinder of the required thickness, are glued, pressed and riveted together, by which means he claims that greater strength, lightness and durability are given to the wheel. This wheel is said to be capable of sustaining a great weight, and running on ordinary roads, without tiring. The veneers may be about one-eighth of an inch thick, and the more there may be of them glued together, the stronger will be the completed article.

THE WONDERFUL STEAM MAN.—We learn from the *Courier-Journal*, that an old acquaintance, the steam-man, so graphically discribed by us some time ago, is now there in Louisville, where the natives are told that "he has made his mile in 2:15; and will be shown in motion." In the advertisement he is seen drawing a barouche with four passengers. So far from being able to do this, we venture to say he cannot *draw* himself. Wonderful humbug! "Big thing," but horses are still dear.

HOW TO MAKE "HARDWARE" ADVERTISING PROFITABLE.—Act as the agent of some firm, solicit advertisements, take the money therefor, and put it into your own wallet. When reminded that the thirty dollars paid you has not been accounted for, say it was merely an omission, or oversight on your part. This soon may be doubled if you can find some labor Union, that will entrust money to your hands, for certain purposes.

SCHNITZERL'S "PHILOSOPHEDE OUT-DONE.—The one-wheel machine, (on paper,) which we gave our readers an account of some time ago has been beaten "out of sight," by one got up in New Orleans. The *Picayune* thus describes what it calls a *wheelocipede*:

Missing 1/2 page

care for wood axle trees, and castor oil for iron. Just grease enough should be applied to the spindle of a wagon to give it a light coating; this is better than more, for the surplus put on will work out at the ends, and be forced by the shoulder bands and nut-washer into the hub around the outside of the boxes. To oil an iron axle-tree first wipe the spindle clean with a cloth wet with spirits of turpentine, and then apply a few drops of castor oil near the shoulder and end. One tea-spoonful is sufficient for the whole.

We would add that for journals on which there is a heavy pressure it is a good plan to mix with the oil some lamp black or common soot. Powdered plumbago or black lead is also employed for the same purpose.

HARDWARE.

MR. EDITOR:—It is a little amusing to notice the reticence of your cotemporary, who fails to answer the proof of his deliberate and wilful falsehoods, contained in the article issued in your April number, over the *nom de plume* of "A Member of the Coach-makers' Union." Is he callously indifferent to exposure, or did the article referred to excite but a *very small* portion of honorable (?) shame in him; or is he proof against all those higher feelings which men usually carry into official positions; or are we to draw the inference, that the proof is so conclusive, "that silence gives consent" to the allegations? Heretofore he has caught up and commented upon the slightest allusions made in your magazine, in regard to his official actions and honesty, torturing and twisting them by his *adopted* editorial *melange* into a temporary shield for his dis-

the I. U. I have heretofore held myself aloof, from reasons of delicacy, knowing the person alluded to is extremely sensitive in regard to anything which touches his honesty, and well he may be; but we do not wish to cast a stone at the unhappy and *suspended* secretary, we will leave him to grow pious and moralize amain, but while he is doing so, we shall speak of some matters in which he was connected, freely, and as we think justly, and for the purpose that an understanding and publication of the facts in our possession, which compromise the honesty of that individual, should be laid before your readers. It is also absolutely indispensable to the vindication of charges made by the President of our organization against him, and as the issue proves true in each and every particular. At one time, this was a paradox, but time has given it proof.

But as he has ignored the truth by means of the press heretofore, and by his self-assertions, through circulars and the columns of *his* (?) publication, it is my purpose, *not* by reason of any false motives of delicacy, to withhold any information which should have been in the hands of those whose interests he subsidized to his own pecuniary benefit, thereby depriving them of moneys appropriated for the use of the I. U. in nurturing *his pet scheme* of a publication of which he was successful in gaining possession through a systematically deep laid scheme; and how, forsooth, he accuses us of "trying to injure his chances for an honest (?) living." A murrain upon such honesty; a fig for such twaddle. Is this the honesty we have heard him prate so much of? Honesty may well hide her head in shame. In connection with this article, I think it *apropos* to mention one or two more neat little

honest (?) transactions of this worthy. He received sixty dollars from the Labor Congress, assembled two years since in Baltimore, for the purpose of paying for the printing of an address to the workingmen of the United States, failing from time to time to issue it. At last it was issued by the officers of the N. L. C., and our then secretary has been called upon many times since to refund the money paid him for that purpose. He, however, has failed to do so, and, as I am informed by a late letter, has to this date; but, on the contrary, he puts in a counterclaim of sixty dollars for services in drawing up the minutes of the N. L. C., in doing which he employs an assistant in our office, *at our expense*, we paying him for the work for which *he* asks sixty dollars; but he is very careful not to give us credit for *loss* of time of the assistants in drawing up those minutes, and is still *more* careful, in giving himself credit regularly with his own salary, taking pay, therefore, in many cases "in advance;" the result being, when he reports at our Convention in Cincinnati, Ohio, he has paid himself every dollar (the books say overpaid), and has wronged the president out of some six hundred dollars. Is this honesty? These charges may be refuted by the *domineering self assertions* (his usual argument) of your cotemporary, but we have printed as well as written proof that these are veritable facts.

I am informed by a letter which lies before me, that he has not refunded this money as yet, but has promised to do so soon. Now, it strikes me very forcibly, that by this concession, he admits that the charge of sixty dollars against the N. L. C. was a fraudulent one, or if not, that he has received pay for the same from our I. U., thereby

defrauding them out of our money. There are two horns to the dilemma; he can accept either, or both, if he thinks he can ride on them. I can enumerate several transactions of that worthy on a par with these, but think it unnecessary at this time, as I have given enough to show you the corrupt fountain from which all these base, bitter waters flowed, which engulfs all honest thinking union members.

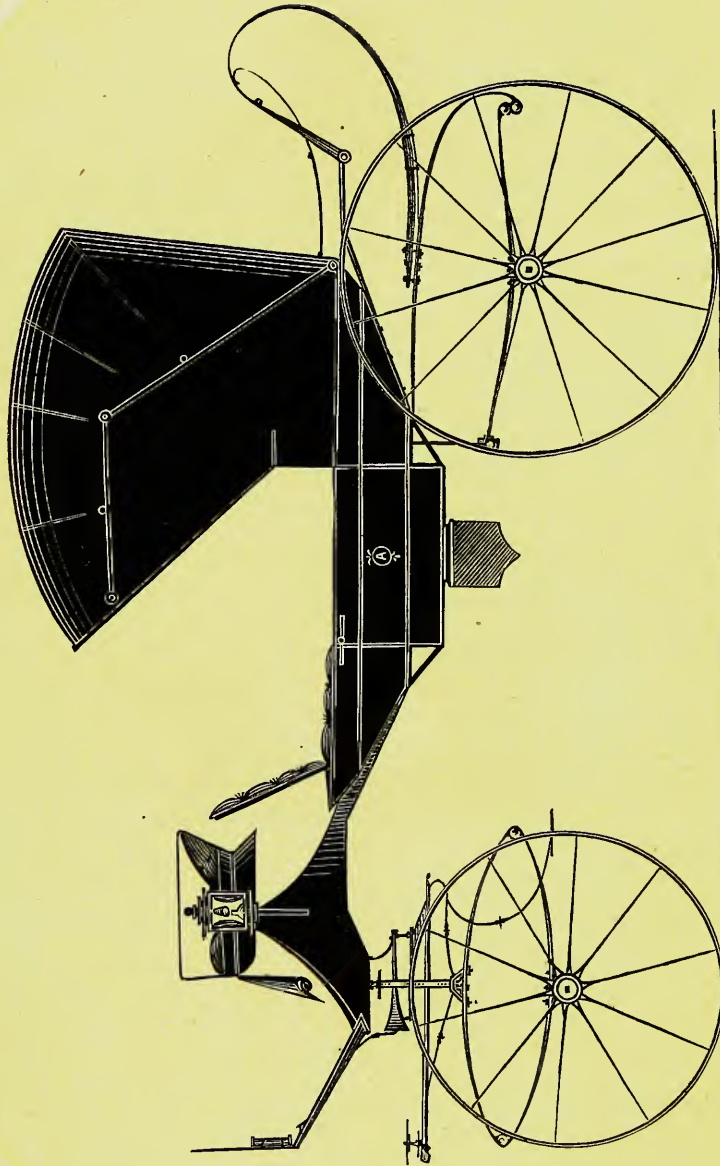
JOHN B. PEEK,

1st. V.-Pres. of C. M. I. U. of N. A.

ISAAC'S ENTERPRISE.

MR. EDITOR:—I have not been an inattentive reader of the exposures of the editor of your Cotemporary, and the undeniable evidence as adduced by your correspondent, "A Member of the Coach-maker's Union," in proof of the base falsehoods contained in his periodical, for we have most of this evidence in the hands of our Secretary. By your indulgence I should like to propound one question to this man, who claims to be the personification of honesty and probity, and who was the Secretary of our I. U. until *suspended*. To what purpose did you appropriate a surplus of over one hundred dollars (this amount being over our assessment for the New York strike), your literary scheme, or in refurnishing your house? We applied by letter to him several times for a statement of our account, but have never been able to elicit a satisfactory answer, or the much coveted statement, consequently, we concluded to keep our money in the hands of *our* Treasurer, and not permit it to pass through his hands.

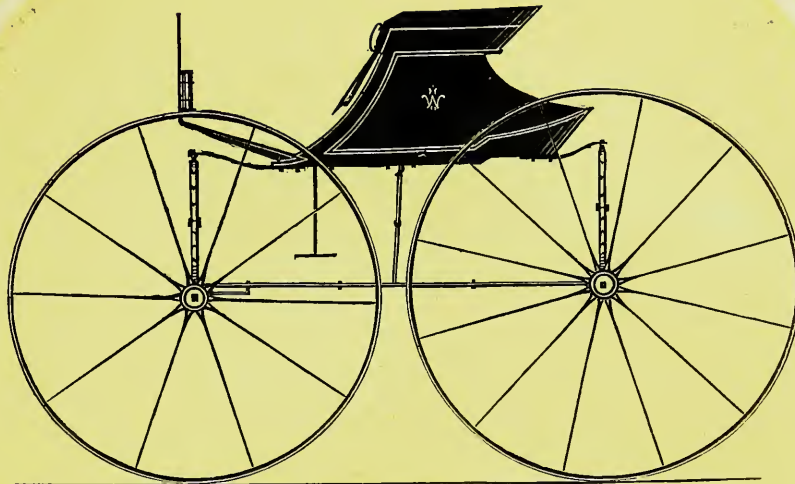
No. 21, PORTLAND, ME.



SIX-PASSENGER PARK PHAETON. — $\frac{1}{4}$ IN. SCALE.

Designed expressly for the New York Coach-maker's Magazine.

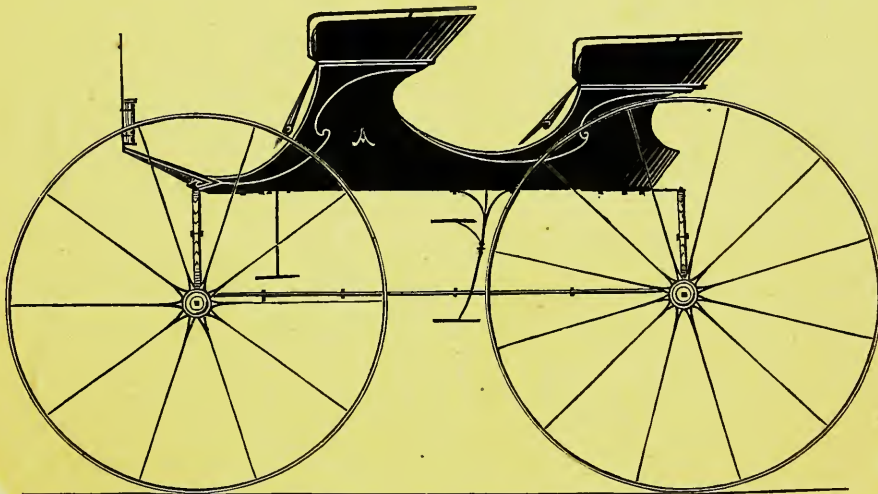
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ROAD BUGGY. — $\frac{1}{2}$ IN. SCALE.

Designed expressly for the New York Coach-maker's Magazine.

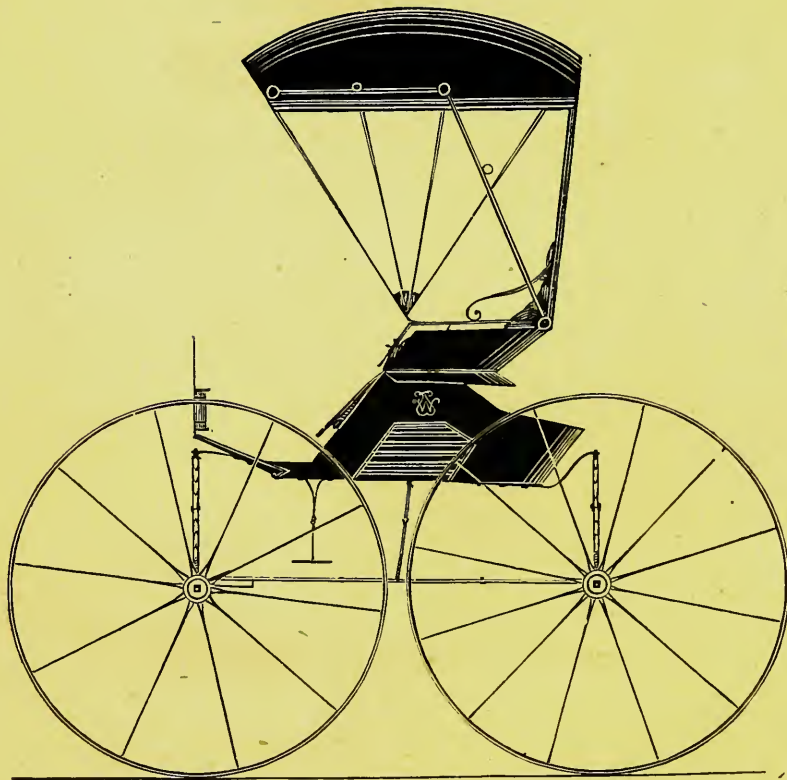
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SCROLL PHAETON. — $\frac{1}{2}$ IN. SCALE.

Designed expressly for the New York Coach-maker's Magazine.

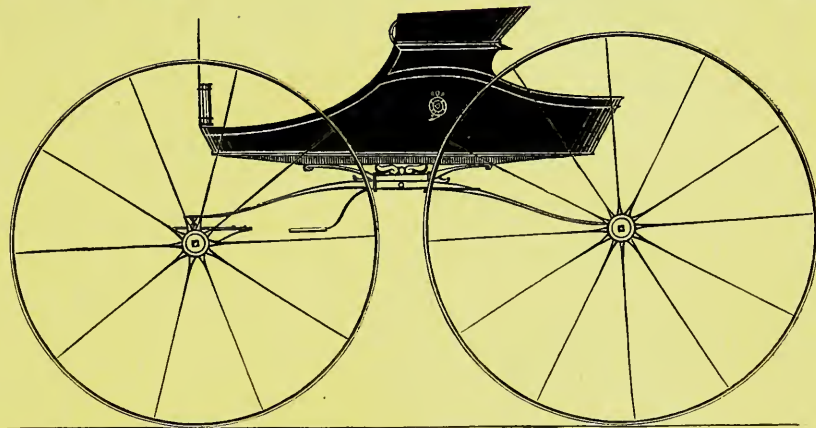
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SHIFTING-TOP BUGGY. — $\frac{1}{2}$ IN. SCALE.

Designed expressly for the New York Coach-maker's Magazine.

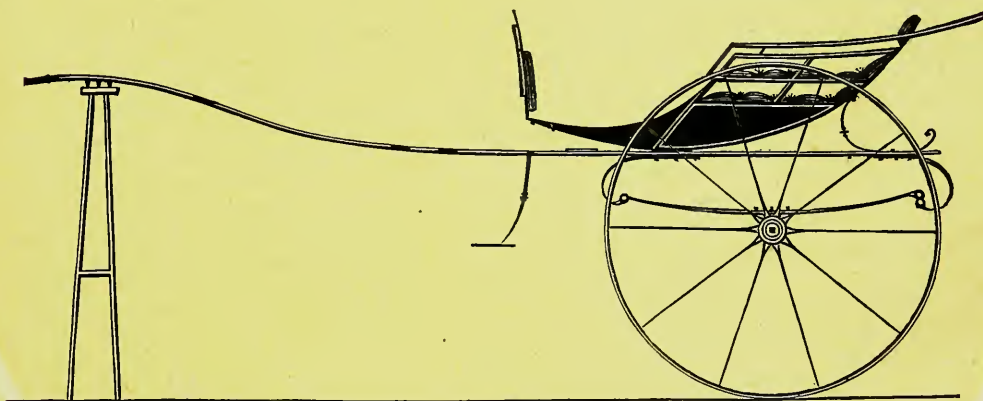
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GAYLORD'S IMPROVEMENT IN CARRIAGE SPRINGS. — $\frac{1}{2}$ IN. SCALE.

Engraved expressly for the New York Coach-maker's Magazine

Explained on page 24.



LIGHT TWO-WHEELED TUB. — $\frac{1}{2}$ IN. SCALE.

Designed expressly for the New York Coach-maker's Magazine.

Explained on page 24.