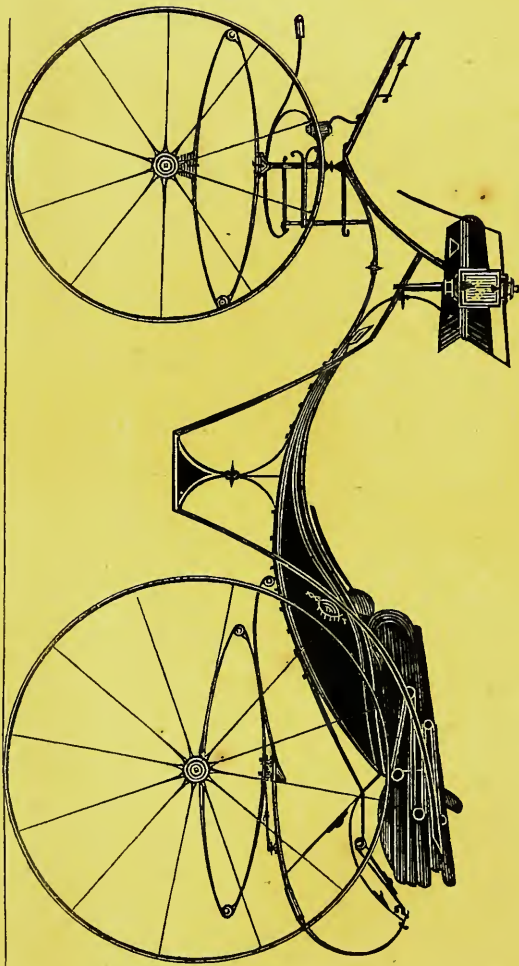


FULL-SIZE LANDAULET. — $\frac{1}{2}$ IN. SCALE.

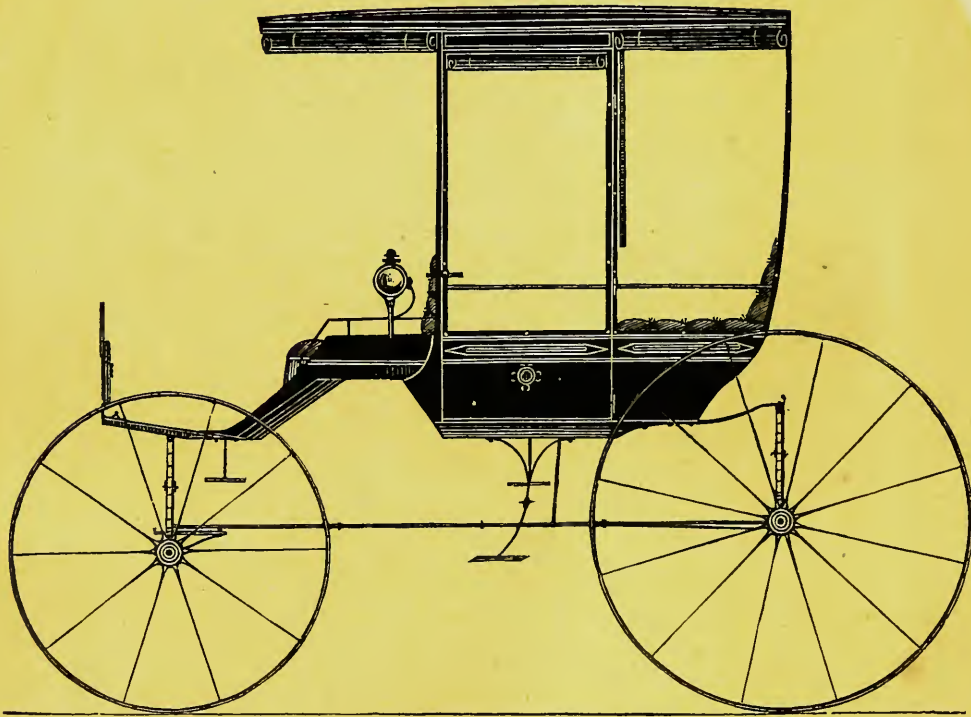
Designed expressly for the New York Coach-maker's Magazine.

Explained on page 74.



DICKEY-SEAT VICTORIA PHAETON. — $\frac{1}{2}$ IN. SCALE.

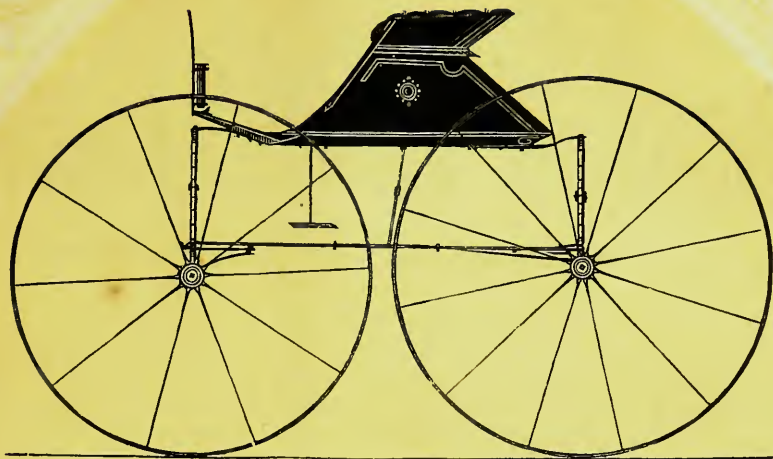
*Designed expressly for the New York Coach-maker's Magazine.
Explained on page 74.*



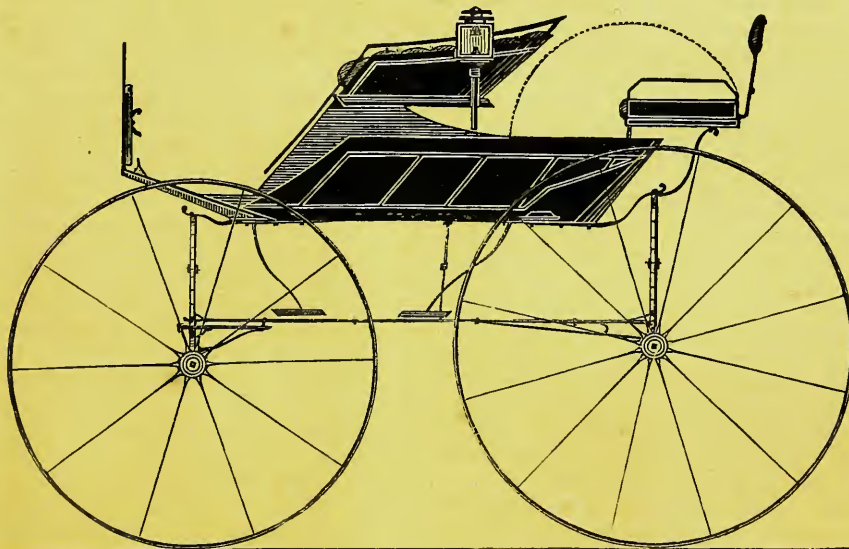
EXCELSIOR ROCKAWAY. — $\frac{1}{2}$ IN. SCALE.

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

Explained on page 74.



ROAD BUGGY.— $\frac{1}{2}$ IN. SCALE.
Designed expressly for the New York Coach-maker's Magazine.
Explained on page 74.



TURN-OUT-SEAT PHAETON.— $\frac{1}{2}$ IN. SCALE.
Designed expressly for the New York Coach-maker's Magazine.
Explained on page 74.



DEVOTED TO THE LITERARY, SOCIAL, AND MECHANICAL INTERESTS OF THE CRAFT.

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No. 5

ARCTIC TRAVELING IN WINTER.

THE morning of December 13th dawned clear, cold, and still, with a temperature of thirty-one degrees below zero; but, as the sun did not rise until half-past ten, it was nearly noon before we could get our drivers together, and our dogs harnessed for a start. Our little party of ten men presented quite a novel and picturesque appearance in their gayly-embroidered fur coats, red sashes, and yellow fox-skin hoods, as they assembled in a body before our house to bid good-by to the Ispravnik and the Major. Eight heavily-loaded sledges were ranged in a line in front of the door, and almost a hundred dogs were springing frantically against their harnesses, and raising deafening howls of impatience as we came out of the house into the still, frosty atmosphere. We bade every body good-by, received a hearty "God bless you, boys!" from the Major, and were off in a cloud of flying snow, which stung our faces like burning sparks of fire. Old Paderin, the Chief of the Geezhega Cossacks, with white, frosty hair and beard, stood out in front of his little red log house as we passed, and waved us a last good-by with his fur hood as we swept out upon the great level steppe behind the town.

It was just mid-day; but the sun, although at its greatest altitude, glowed like a red ball of fire low down in the southern horizon, and a peculiar gloomy twilight hung over the white wintry landscape. I could not overcome the impression that the sun was just rising, and that it would soon be broad day. A white ptarmigan now and then flew up with a loud whir before us, uttered a harsh "querk, querk, querk" of affright, and, sailing a few rods away, settled upon the snow and became suddenly invisible. A few magpies sat motionless in the thickets of trailing pine as we passed, but their feathers were ruffled up around their heads, and they seemed chilled and stupefied by the intense cold. The distant blue belt of timber along the Geezhega River wavered and trembled in its outlines, as if seen through currents of heated air; and the white, ghost-like mountains, thirty miles away to the southward, were thrown up and distorted by refraction into a thousand airy, fantastic shapes, which melted imperceptibly, one into another, like a series of dissolving views. Every feature of the scenery was strange, weird, arctic. The red sun rolled slowly along the southern horizon, until it seemed to rest on a white, snowy peak far away in the southwest; and then, while we were yet expecting day, it suddenly disappeared, and

the gloomy twilight deepened gradually into night. Only three hours had elapsed since sunrise, and yet stars of the first magnitude could already be plainly distinguished.

We stopped for the night at the house of a Russian peasant who lived on the bank of the Geezhega River, about fifteen versts east of the settlement. While we were drinking tea a special messenger arrived from the village, bringing two frozen blueberry pies as a parting token of regard from the Major, and a last souvenir of civilization. Pretending to fear that something might happen to these delicacies if we should attempt to carry them with us, Dodd, as a precautionary measure, ate one of them up to the last blueberry; and, rather than have him sacrifice himself to a mistaken idea of duty by trying to eat the other, I attended to its preservation myself, and put it forever beyond the reach of accidental contingencies.

On the following day we reached the little log yourt on the Malmofka, where we had spent one night on our way to Geezhega; and, as the cold was still intense, we were glad to avail ourselves again of its shelter, and huddle around the warm fire which Yagor kindled on a sort of clay altar in the middle of the room. There was not space enough on the rough plank-floor to accommodate all our party, and our men built a huge fire of tamarack logs outside, hung over their tea-kettles, thawed out their frosty beards, ate dried fish, sang jolly Russian songs, and made themselves so boisterously happy, that we were tempted to give up the luxury of a roof for the sake of sharing in their out-door amusements and merriment. Our thermometers, however, marked 35 below zero, and we did not venture out of doors except when an unusually loud burst of laughter announced some stupendous Siberian joke which we thought would be worth hearing. The atmosphere outside seemed to be just cool enough to exert an inspiriting influence upon our lively Cossacks, but it was altogether too bracing for unaccustomed American constitutions. With a good fire, however, and plenty of hot tea, we succeeded in making ourselves very comfortable inside the yourt, and passed away the long evening in smoking Circassian tobacco and pine bark, singing American songs, telling stories, and quizzing our good-natured but unsophisticated Cossack Mereneff.

It was quite late when we finally crawled into our fur bags to sleep; but long afterward we could hear the songs, jokes, and laughter of our drivers as they sat around the camp-fire and told funny stories of Siberian travel.

We were up on the following morning long before daylight; and, after a hasty breakfast of black bread, dried fish, and tea, we harnessed our dogs, wet down our sledge-runners with water from the tea-kettle to cover them with a coating of ice, packed up our camp equipage, and, leaving the shelter of the tamarack forest around the yourt, drove out upon the great snowy Sahara which lies between the Malmofka River and Penzhinak Gulf. It was a land of desolation. A great level steppe, as boundless to the weary eye as the ocean itself, stretched away in every direction to the far horizon without a single tree or bush to relieve its white, snowy surface. Nowhere did we see any sign of animal or vegetable life, any suggestion of summer or flowers, or warm sunshine to brighten the dreary waste of storm-drifted snow. White, cold, and silent, it lay before us like a vast frozen ocean, lighted up faintly by the slender crescent of the waning moon in the east, and the weird blue streamers of the aurora, which went racing swiftly back and forth along the northern horizon. Even when the sun rose, huge and fiery in a haze of frozen moisture at the south, it did not seem to infuse any warmth or life into the bleak, wintry landscape. It only drowned, in a dull, red glare, the blue, tremulous streamers of the aurora, and the white radiance of the moon and stars, tinged the snow with a faint color like a stormy sunset, and lighted up a splendid mirage in the northwest, which startled us with its solemn mockery of familiar scenes. The wand of the Northern Enchanter touched the barren, snowy steppe, and it suddenly became a blue tropical lake, upon whose distant shore rose the walls, domes, and slender minarets of a vast Oriental city.

Masses of luxuriant foliage seemed to overhang the clear, blue water, and to be reflected in its depths, while the white walls above just caught the first flush of the rising sun. Never was the illusion of summer in winter, of life in death, more palpable or more perfect. One almost instinctively glanced around to assure himself, by the sight of familiar objects, that it was not a dream; but, as his eye turned again to the northwest across the dim blue lake, the vast, tremulous outlines of the mirage still confronted him in their unearthly beauty, and the "cloud-capped towers and gorgeous palaces" seemed, by their mysterious solemnity, to rebuke the doubt which would ascribe them to a dream. The bright apparition faded, glowed, and faded again into indistinctness, and from its ruins rose two colossal pillars, sculptured from rose-quartz, which gradually united their capitals, and formed a Titanic arch, like the grand portal of heaven. This, in turn, melted into an extensive fortress, with massive bastions and buttresses, flanking towers and deep embrasures and salient and reëntering angles, whose shadows and perspective were as natural as reality itself. Nor was it only at a distance that these deceptive mirages seemed to be formed. A crow, standing upon the snow at a distance of perhaps two hundred yards, was exaggerated and distorted beyond recognition; and, once having lingered a little behind the rest of the party, I was startled at seeing a long line of shadowy dog-sledges moving swiftly through the air, a short distance ahead, at a height of eight or ten feet from the ground. The mock sledges were inverted in position, and the mock dogs trotted along, with their feet in the air, but their outlines were almost as clear as those of the real sledges and real dogs underneath. This curious phenomenon lasted only a mo-

ment, but it was succeeded by others equally strange, until, at last, we lost faith in our eyesight entirely, and would not believe in the existence of any thing unless we could touch it with our hands. Every bare hillock or dark object on the snow was a nucleus around which were formed the most deceptive images, and two or three times we started out with our rifles in pursuit of wolves or black foxes, which proved, upon closer inspection, to be nothing but crows. I had never before known the light and atmosphere to be so favorable to refraction, and had never been so deceived in the size, shape, and distance of objects on the snow.

The thermometer at noon marked 35^o, and at sunset it was 38^o, and sinking. We had seen no wood since leaving the yourt, on the Malmofka River, and, not daring to camp without a fire, we traveled for five hours after dark, guided only by the stars and a bluish aurora which was playing away in the north. Under the influence of the intense cold, frost formed in great quantities upon every thing which was touched by our breaths. Beards became stiff, tangled masses of frozen iron-wire, eyelids grew heavy with long white reins of frost, and frozen together when we winked, and our dogs, enveloped in dense clouds of steam, looked like snowy polar wolves. Only by running constantly beside our sledges could we keep any sensation of life in our feet. About eight o'clock a few scattered trees loomed up darkly against the eastern sky, and a joyful shout from our leading drivers announced the discovery of wood.

We had reached a small stream called the Oosenova, seventy-five versts east of Geezhega, in the very middle of the great steppe. It was like coming to an island after having been long at sea. Our dogs stopped and curled themselves up into little round balls on the snow, as if conscious that the long day's journey was ended, while our drivers proceeded to make, rapidly and systematically, a Siberian half-faced camp. Three sledges were drawn up together, so as to make a little semi-enclosure about ten feet square; the snow was all shoveled out of the interior, and banked up around the three closed sides, like a snow-fort, and a huge fire of trailing pine branches was built at the open end. The bottom of this little snow-cellar was then strewn to a depth of three or four inches with twigs of willow and alder, shaggy bearskins were spread down to make a warm, soft carpet, and our fur sleeping-bags arranged for the night. Upon a small table extemporized out of a candle-box, which stood in the centre, Yagor soon placed two cups of steaming hot tea and a couple of dried fish. Then stretching ourselves out in luxurious style upon our bearskin carpet, with our feet to the fire and our backs against pillows, we smoked, drank tea, and told stories in perfect comfort.

After supper, the drivers piled dry branches of trailing pine upon the fire until it sent up a column of hot, ruddy flame, ten feet in height; and then, gathering in a picturesque group around the blaze, they sang for hours the wild, melancholy songs of the Kamtchadals, and told never-ending stories of hardships and adventure on the great steppes and along the coast of the "icy sea." At last the great constellation of Orion marked bed-time. Amid a tumult of snarling and fighting the dogs were fed their daily allowance of one dried fish each; fur stockings, moist with perspiration, were taken off and dried by the fire, and, putting on our heavi-

iest fur "kookhlankas," we crawled, feet first, into our bearskin bags, pulled them up over our heads, and slept.

A camp in the middle of a clear, dark winter's night presents a strange, wild appearance. I was awakened, soon after midnight, by cold feet, and, raising myself upon one elbow, I pushed my head out of my frosty fur bag to see by the stars what time it was. The fire had died away to a red heap of smouldering embers. There was just light enough to distinguish the dark outlines of the loaded sledges, the fur-clad forms of our men lying here and there in groups about the fire, and the frosty dogs, curled up into a hundred little hairy balls, upon the snow. Away beyond the limits of the camp stretched the desolate steppe in a series of long snowy undulations, which blended gradually into one great white frozen ocean, and were lost in the distance and darkness of night. High overhead, in a sky which was almost black, sparkled the bright constellations of Orion and the Pleiads—the celestial clocks which marked the long, weary hours between sunset and sunrise. The blue mysterious streamers of the aurora trembled in the north, now shooting up in clear, bright lines to the zenith, then waving back and forth in great majestic curves over the silent camp, as if warning back the adventurous traveler from the unknown regions around the pole. The silence was profound, oppressive. Nothing but the pulsating of the blood in my ears and the heavy breathing of the sleeping men at my feet broke the universal lull.

Suddenly there rose upon the still night-air a long, faint, wailing cry, like that of a human being in the last extremity of suffering. Gradually it swelled and deepened, until it seemed to fill the whole atmosphere with its volume of mournful sound, dying away, at last, into a low, despairing moan. It was the signal-howl of a Siberian dog, but so wild and unearthly did it seem in the stillness of the arctic midnight, that it sent the startled blood bounding through my veins to my very finger-ends. In a moment the mournful cry was taken up by another dog upon a higher key, two or three more joined in, then ten, twenty, forty, sixty, eighty, until the whole pack of a hundred dogs howled one infernal chorus together, making the air fairly tremble with sound, as if from the heavy bass of a great organ. For fully a minute heaven and earth seemed to be filled with yelling, shrieking fiends. Then one by one they began gradually to drop off, the unearthly tumult grew momentarily fainter and fainter, until at last it ended, as it began, in one long, inexpressibly melancholy wail, and all was still. One or two of our men moved restlessly in their sleep, as if the mournful howls had blended unpleasantly with their dreams, but no one awoke, and a death-like silence again pervaded heaven and earth.

Suddenly the aurora shone out with increased brilliancy, and its waving swords swept back and forth in great semicircles across the dark, starry sky, and lighted up the snowy steppe with transitory flashes of colored radiance, as if the gates of heaven were opening and closing upon the dazzling brightness of the celestial city. Presently it faded away again to a faint, diffused glow in the north, and one pale green streamer, slender and bright as the spear of Ithuriel, pushed slowly up toward the zenith, until it touched, with its translucent point, the jeweled belt of Orion. Then it, too, faded and vanished, and nothing but a bank of pale white mist, on the northern horizon, showed the location of the celestial

armory, whence the arctic spirits drew the gleaming swords and lances which they shook and brandished nightly over the lonely Siberian steppes. Crawling back into my bag as the aurora disappeared, I fell asleep, and did not wake until near morning.

With the first streak of dawn the camp began to show signs of animation. The dogs crawled out of the deep holes which their warm bodies had melted in the snow, the Cossacks poked their heads out of their frosty fur-coats, and whipped off, with little sticks, the mass of frost which had accumulated around their breathing-holes; a fire was built, tea boiled, and we crawled out of our sleeping-bags to shiver around the fire, and eat a hasty breakfast of rye-bread, dried fish, and tea. In twenty minutes the dogs were harnessed, sledges packed, and runners covered with ice, and, one after another, we drove away at a brisk trot from the smoking fire, and began another day's journey across the barren steppe.

In this monotonous routine of riding, camping, and sleeping on the snow, day after day slowly passed, until, on December 20, we arrived at the settled Korak village of Shestakova, near the head of Penzhinak Gulf. From this point our Geezhega Cossacks were to return, and here we were to wait until the expected sledges from Penzhina should arrive. We lowered our bedding, pillows, camp equipage, and provisions down through the chimney-hole of the largest yurt in the small village, arranged them as tastefully as possible on the wide wooden platform which extended out from the wall on one side, and made ourselves as comfortable as darkness, smoke, cold, and dirt would permit.—*Putnam's Magazine.*

THE PRATER AT VIENNA.

BY CLEMENS PETERSEN.

THE first time I saw an American buggy was in the Prater, at Vienna, about three or four years ago. It must at that time have been quite a novelty in that city, for as it drove along every body stopped, stared, and burst out laughing. And so did I.

The Prater is a large forest extending many miles into the country from the northern suburb of Vienna, which is called the Leopoldstadt, and is the residence of the Jews. This forest is traversed by several broad, straight driveways, which run fan-like from the foot of the main street of Leopoldstadt. But only two of these driveways are remarkable—the Wurstelprater and the Prater proper. The others have, I understand, very few visitors, and not even a name. The Wurstelprater, on the contrary, and the Prater proper, are well known over all Europe. They are crowded and noisy, and are pleasant to visit on any night in the summer; and though there is a great and marked difference between them, both of them are so interesting as to make the foreigner uncertain which to prefer. In the Wurstelprater the common people sing and dance, drink "Bier and eat Wurst" (which last is similar to the American sausage), fall in love and at variance with each other, while the high-bred ones play the spectators. In the main Prater the rich and high-born people ride and drive, court and comment upon each other, take supper and make scandal, while the common ones stand by as lookers-on. The Wurstelprater is the sport of the people; the Prater is the elegance of the nation. Both of them are interesting. To-day, however, we have errand only in the main Prater, for it was there I first saw the American buggy.

On the right side of this driveway there is a broad, well-prepared carriage road, and on the left an excellent, macadamized walk, with comfortable benches and seats. Behind the driveway the forest opens, and it is indeed charming to sit here in summer, when the sun is setting, and look across into the glades where the sunbeams drop like golden rain. Behind the walk the forest grows thick and dark, enlivened, however, by a long row of pleasure establishments of a kind peculiar to Vienna. They are called No. 1, No. 2, No. 3, etc. The buildings themselves are quite insignificant. They contain, I think, only a large kitchen for the meats, and a still larger cellar for the wines. But the places between the buildings and the walk are often very beautifully decorated with statues and fountains; and here under the deep shade of linden and chestnut trees, the merry people of Vienna gather around the small, white-spread tables to have their supper and their wine, while the bands are playing the most exquisite music. Indeed nowhere in the world is such music to be heard as in Vienna, which was Mozart's and Beethoven's homestead. Here it is very pleasant to walk on a warm summer night at nine o'clock, when each table is lighted by a little wax candle, protected against the draft by a large cup of glass, and the whole enlivened by a crowd of merry faces, and listen to the notes of Mozart's melodies seeking their way through the forest and echoing in the glades, and to watch the rising moon throwing her silver veil over the dreaming landscape.

In the afternoon, between five and seven o'clock, this drive is crowded with the most splendid carriages, occupied by the nobility who wish to take fresh air. They drive in two rows, one line passing up the avenue and the other down; and sometimes, on the first of May for instance, there are two, three, or four lines of carriages on each side of the road. It is a brilliant sight. We can point out only a few of the most remarkable details. The Kaiser himself is seldom seen in the Prater. The turnout of first importance, therefore, belongs to the ex-King of Hanover, who is a frequent, if not a daily, visitor. Prussia took his kingdom, but left some of his millions untouched. Now he lives at Hiezing'n, a village in the neighborhood of Vienna, where he keeps an army of vagabonds, a council of newspaper reporters and pamphlet peddlers, and a court of poor hangers-on. His coach is always accompanied by another similar coach containing his suit. Each of these is drawn by a span of six horses. Thus his Majesty's train is quite lengthy. The coaches have no boxes and the horses no drivers. The horses are driven in three pairs, and the nigh horse of each pair is ridden by a "jockey." These "jockeys" are clothed in tight silk trowsers of white, blood-red coat embroidered with gold, and huge periwig white with powder. Three other persons of the same aspect are placed behind the coach, standing on a small platform which is hung between the wheels. The whole array would, indeed, have been very imposing if the king had only been possessed of a kingdom, but he had none; and I could not forbear thinking of his rival, the honest old King of Prussia, who robbed his realm and some of his millions too. The latter rides in a very plain phaeton, with only two horses, and I should never have imagined that it was the good, beloved King Wilhelm I met with in the streets of Berlin, had not half a hundred policemen preceded his carriage, and kicked and knocked people out of the way in quite regal style, crying enthusiastically: "The king! Hurrah!"

After the ex-king of Hanover come the Austrian archdukes, a number of tall youths, with their sandy beards and big red under lips, which latter, together with some big revenues, are said to be the only heritage they hold from their great ancestors. They ride in a sort of American hearse, on the top of which are placed, in the front, a calash-seat for the archduke and the archduchess, and in the rear is a spring seat for the groom. The dukes drive for themselves, and drive excellently. Of course all other carriages turn aside respectfully before them. After the archdukes follow the Princes of Metternich, Auersperg, Fürstenfels, Czartorisky, Esterhazy, etc.; they are counted by scores. And after them come the counts and the barons, which are counted by hundreds. At last rolls along the banker, and though he has no coat of arms painted on his carriage door, his coach, and even his team, may be as splendid as any one's else.

The most attractive part of the whole scene for a foreign spectator is, no doubt, the show of horses. I have never seen English horses, but though I have heard them praised very much, I nevertheless doubt if there are to be seen at once elsewhere so many beautiful horses as in the Prater at Vienna. I speak, of course, of the Hungarian horses. They are more excellent even than the Hungarian wine. There must, indeed, be something in the soil of Hungary that gives those proud necks and those bright eyes to the inhabitants, for the horses have them too. They are not tall, but are rather long, round in the bodies, and exceedingly fine in the limbs. Fiery and fierce they look with their quivering nostrils and palpitating loins, and yet how docile they are. A good teamster, who is known to them, may drive them by a silk ribbon. They are often spotted, and even if they are of a uniform color, this is seldom pure white or pure black, but rather one of those mixed colors which suit a horse so well.

Pure white or pure black are not favorable for showing the forms of a horse. On the contrary, they set off even the most minute lacks of consummate proportion. A white or a black horse seems always to be too fat or too meagre, and it looks rather wild than fiery, rather drowsy than soft-tempered. Far better is the brown color, especially if well shaded; but the best ones are the mixed, such as gray, or grayish brown, or brownish yellow, or Isabella yellow. Does the reader remember that color? History mentions it with considerable gusto. When Queen Isabella was besieging Granada, the capital and the last spot of Moorish dominion in Spain, she made two remarkable promises—first, to give ships to Columbus for his adventurous expedition, provided that she took the city; and secondly, not to change her under garments until she had taken it. The siege lasted eleven months before the city surrendered, but these two great discoveries were thereby made—that of America by Columbus, and that of a new yellow color from the Queen's chemise. This color is much used by ladies for morning dresses and dust mantles, but it shows best as the color of a horse. I saw, indeed, in the Prater, four Isabella-yellow horses, with black tails and black manes, dancing before a light elegant vehicle, and never before and never since was I so anxious to own a horse myself, though I have always been very fond of them.

The carriages, on the contrary, would hardly please a spectator who was accustomed to the sight of American carriages. He would have considered them too heavy

and too large. They may be both elegant and noble in their forms, but they are, indeed, much heavier and a good deal larger than the American vehicles. The European coach is constructed upon another principle; it has not, as the American, a box for the driver and a seat for the servant. It is rather constructed after the fashion of a castle from the middle ages. It has platforms for sentinels in front and in rear. The European coach must be capable of carrying four, or even six, domestics outside. Previous to the great slaughter of European prejudices in 1848, the Danish king, when driving in a procession, was accustomed to have two chamberlains or under-chamberlains, with flowerpots on their heads, and naked swords in their hands, standing on each of his carriage steps. I am inclined to think that a European lady demands a more comfortable seat, or at least far more room, in her private pleasure-carriage than an American lady. A coach in the Prater, or in the Champs Elysées, is not made merely to carry a lady, but to display her, and if it has not room for the proper arrangement of some hundred yards of velvet, silk, laces, and ribbons, it will not suit her. At the time I last visited the Prater, there was one more reason for making the coaches as large as possible. It was the high tide of crinoline fashion, and at that time no girl thought herself decently dressed if she did not cover some five or six square yards. When Marie Antoinette took a fancy for wearing ostrich feathers in her head-dress, it cost France two millions of francs to have the doors of the Louvre and the Palace of Versailles heightened, that the queen might pass through them without spoiling her feathers. How much has it cost the world to have the carriages altered after the Empress Eugenie caught the caprice of concealing with crinoline what was triumphantly published in all the Paris newspapers, namely, that she bore the heir of the French crown under her heart?

In the midst of this ridiculous fashion for extreme size, which extended even to the carriages, the American buggy made its first appearance in the Prater. It was a spider-like vehicle, with a very small seat placed somewhere on the axles, between four huge wheels. It was wheels all of it, and yet these wheels were as fine and thin as a cobweb. They almost disappeared to the eye, when in motion, and thus the vehicle seemed to move in the air. At first, people considered it a new sort of plaything for children, but when a strong and quick trotter was harnessed to it, and the owner, a horse-jockey from Connecticut, a tall, raw-boned man, with a sharp eye and a huge chimney hat perched on the back of his head, put himself on the seat, the curiosity grew into amazement. And then the buggy, like a swallow, flew down the avenue, meandering among the pompous and sedate coaches of the Austrian nobility. The archduke dropped his whip from astonishment. The drivers of the princes grew red with rage, and we lookers-on jumped on the benches laughing and applauding and ridiculing this strange apparition from the New World.

CARRIAGE LIBRARY.

A LIBRARY is a powerful educator, and we believe it would be of great value to both employer and employees if a well-selected one, consisting mostly of mechanical books, were established in each large carriage factory.

In order to illustrate how good and practical a library

for carriage-makers can be made up, and to render more available the suggestion we have made above, we presented in the September Magazine a list of about twenty-five books and publications in English which relate directly or indirectly to carriage-making. We do not think this list is by any means complete, but it shows how a good beginning can be made, and we invite the co-operation of all our friends in suggesting to us all other publications of a similar nature with which they are acquainted. With their assistance we hope in a few months to present a full list of coach-making works, and we trust the show of titles will make so favorable impression on some of our readers that they will be induced to carry out our suggestion and establish a shop library.

In the present number we carry on our plan by enumerating such French works as are known to us.

L'ART DU MENUISIER-CARROSSIER.—(The Art of Carriage Joinery.) This was published by M. Roubo le Fils, in 1771. Very rare.

MONITEUR DE LA CARROSSERIE.—(Journal upon Carriage Building.) This publication was started in 1850, under the editorship of Guillon.

LE CARNET DU PEINTRE EN VOITURES.—(Hand-book on Painting Carriages.) This book was edited jointly by Brice Thomas and Gastellier.

MERCURE UNIVERSEL.—Published in Paris.

MANUEL COMPLET DU PEINTRE EN VOITURES.—(Complete Manual of Carriage Painting.) By Gastellier.

We feel that this is far from being complete. In November we shall continue this subject.

PUBLIC PARKS.

ONE of the most interesting papers read at a recent meeting of the Social Science Association was that by Mr. Fred. Law Olmstead on Public Parks and the Enlargement of Towns. It is full of suggestion and sound thought, the result of many years of experience. Mr. Olmstead begins by referring to the almost irresistible tendency of population in all countries to gather into towns. The time was when the best sort of people liked living in the country, and the rural gentry were not only the most cultivated, but the ruling class. Even in England, which has so long been celebrated for its snug country homes and beautiful estates, on which the owners resided all the year round, maintaining a hospitable cheer, and keeping up the amusements of field and hall, people are rushing to the cities. Our farmers' sons and daughters are not happy unless they have the prospect before them of ultimately settling in town. The former want to become merchants or shopkeepers, in order to participate in city enjoyments, and the latter dream of nothing but city fashions, city delights, city beaux. London is getting to be more and more the heart of England, as Paris has long been the heart of France. Glasgow grows six times faster than the rest of Scotland, Berlin twice as fast as the rest of Prussia, and Dublin holds its own while Ireland depopulates. Such being the fact, it becomes one of the most important questions, how the people of the towns can be made most comfortable, most healthful, most refined, in a word, most civilized. Mr. Olmstead's answer is, by the proper regulation and planting of the streets, and the multiplication of parks which will admit of all kinds of neighborly recreation. Nor, in our opinion, does he exaggerate the importance of these means. The gregarious instincts of human beings are nowhere so safely,

harmoniously, innocently, beneficially gratified, as in the free, open-air assemblages of well-planned and well-regulated parks.

We New Yorkers, who have felt the inestimable benefit of the Central Park, will commend with all our hearts to the residents of smaller cities the wise remarks of Mr. Olmstead.

We do not believe, however, that the country is going to be wholly deserted for the cities; on the contrary, we think that by means of a park-like arrangement, rural neighborhoods may be made as attractive as any towns. The great drawback of country life, now, is its solitariness, or the want of those conveniences which are to be found only in larger aggregations of families. The farmer and his family are comparatively isolated, or, if they have neighbors they are so remote as to be of little use as society. Each house must suffice for itself, not only raising its own supplies, but furnishing its own recreations and amusements. If teachers for the children are wanted, they can only be had at great expense. Men of wealth, even, who retire into the country, very soon find themselves deprived of many of the comforts to which they were accustomed, of ordinary human intercourse often, and are glad to hurry away to the watering-places in summer and to return to the cities in winter. The remedy for this is in some sort of united settlement, where the lands, though not owned in common, may yet be laid out in common, and where a sufficient number of families will be joined together to command a good market, good mechanics, good teachers, and an adequate social intercourse. We have heard of one or two of these settlements, not far from this city, where all the advantages of both town and city life are combined to a surprising degree. The residents have their separate houses and patches of ground, but a common park to ride and walk in, plentiful supplies, good society, a frequency of amusements, and, in short, such attractions, that instead of going to Newport or Saratoga in the hot months, and instead of returning to the Fifth Avenue Hotel or the Everett in the winter, they stay all the year round in their own homes. Such rural parks, if more generally established, would counteract the tendency to concentrate in towns, and lend a charm to country life which, to the greater part of people, it has not now. To ruralize the cities, as Mr. Olmstead proposes, by shade trees and public grounds, and urbanize the country by contiguous buildings and the clustering of estates, are at this time the supreme *desiderata* of a higher civilization; and without them, it appears to us, both city and country will degenerate.

PITT INSURED BY HIS COACH-MAKERS.

The greatest British minister of the last century died insolvent, and from this arose a most interesting insurance action.

In 1803 William Pitt was indebted to Godsall & Co., his coachmakers, for over \$5,000, and to make sure of some part of this, in case of his death, they insured his life for seven years with the Pelican Company, for \$2,500, at the rate of about sixteen per cent. In 1806, three years after this, the premier died without sufficient assets to meet his liabilities. The greatness of his services to his country, and the proof of his self-abnegation, which was afforded by the fact that he died in debt, demanded an acknowledgment, and the State determined very pro-

perly to pay his creditors. This did not satisfy the coach-makers, and immediate claim was made by them for the \$2,500 insured. As they had received, however, the entire amount of their bill from the State, the insurance company refused to pay, on the ground that the insurable interest in the life of the deceased had been terminated by the payment of his debts, and that the insurance was to meet a special debt, since discharged. On a trial of the case, the court decided against the coach-makers.

THE DESERT WAGONER.

THE following singular piece of versification, printed in the *Territorial Enterprise*, is written by a man who crossed the plains some years since, and has experienced all that which he describes so well. There is much real artistic merit in the poem:

Alone! Alone!
 Night after night
 Alone!
 I lie and watch the stars
 Or count the fleece-clouds in their flight
 Across the track of Mars.
 Stillness! Stillness—
 Pains the listening ear,
 Far off, around, above and near—
 Save where the horses, weary with the day,
 Tramp round the wagon—grinding—grinding hay.
 No human landmark
 And no social sign;
 Naught but the sand-mark
 Of the wagon line.
 And here I lie, or sit, and peer around
 Among the sage-brush on the arid ground—
 But yonder! yonder!
 Far across the plain,
 Loom grandly the tall mountains;
 Stony, sterile, with no fountains;
 Thirsty—drinking all the summer rain.
 Looming! Looming!
 Darkly, lifting high
 Their ancient heads
 Athwart the starry sky,
 While nature treads—
 In night-ropes sombre clad—
 With slipper-footed Silence
 Chill and sad—
 Among the rocky, torn and rugged scars;
 The canyon rifts of elemental wars.

Alone! Alone!
 If I should die
 Alone!
 Without a helping hand,
 Or one fond, faithful, tearful eye
 To light me from the land!
 Stillness! Stillness!—
 Then will be profound,
 Save where the horses stamp the ground,
 Clanking their halters on the sounding wheel,
 Feeling, in hunger, all they know to feel.
 No funeral tramping
 And no church's sining;
 A dead man's camping
 Off the wagon line.
 And here I lie to think, or sleep, or die,
 Among the sage-brush, roofed with all the sky;
 But yonder! yonder!
 Monuments arise;
 God's handiwork, in masses,
 In the night wind, as it passes,
 Singing, singing glory to the skies.
 Looming! Looming!
 God's majesty is here!
 No Jewish story—

Only truth so clear.
 Majestic glory
 Of a fact, with Nature
 Bowed in silence at his feet.
 His creature—
 That is me—I'll lay me on my pillow hard
 And sleep: the Universal Keeper is on guard.
 Alone! Alone!
 I wake at dawn,
 Alone!
 And watch the softer light
 Where fair Aurora's robes are thrown
 Full in the arms of Night.
 Stillness! Stillness!
 Welcomes me again.
 Refreshed, renewed, without a pain,
 I raise my head to hear the beggars' neigh—
 My horses—"Ho! ho! How about more hay?"
 No other life abroad
 Save me and mine;
 Deserted is the road;
 No smoke along the line!
 But now I'm busy, and I do not muse
 On gravest matter or important views,
 Yet yonder! yonder!
 Near, across the plain—
 Loom grandly the tall mountains;
 Stony, sterile, with no fountains;
 Thirsty—drinking all the summer rain.
 Looming! Looming!
 In the golden flood.
 No printed leaf
 Or story about blood,
 With grief on grief—
 But glorious masses
 Flung back the light to us—
 Poor asses!—
 Who, without reason, show, or cause,
 Think we can pray a crook in Nature's laws.
 —Singleline.

Paint Room.

COMPLEMENTARY COLORS.

THE fundamental principle to be observed in the tasteful arrangement of colors is that relation between them which makes two colors complementary. Without a thorough knowledge of this phenomenon of colors which we call "complement" and its cause and its effects, the painter will never be able to use colors as colors ought to be used, for, indeed, all their power of setting off each other, and all their capacity of melting together into harmony, rest on this relation between them.

In some way or another almost every person will at times evince some appreciation of the foregoing fact. Thus it often happens when buying red yarn or cloth, and choosing the tint, that customers will declare the specimen which was first shown them to be the most brilliant or even the only bright and pure one, or they will even protest that all the others, especially that one which was shown them last, are greyish and dull; and they will perhaps even feel a little offended if the merchant, not knowing the only argument possible, denies their statement, and tells them that the case is quite the opposite. He may, however, be right. It is the customer's eyes which are greyish and dull. They have become tired by gazing for a long time at the same color, and they seek for rest in the complementary color, which in this case is the green, which their eye itself produces, and with which they mix the red. The only way to settle the matter is to

place something green among the red colors and make the customer look on that. Within a minute his eyes will recover their natural power to discriminate between the several red tints. We give another instance of this: In a silk dress with sky-blue ground and white flowers, some of the flowers will appear white and some orange, and, when in motion, the white flowers will become quite orange and the orange white, as the blue ground happens at times to subdue the white color, and throw over it its own complementary color, namely orange. The following is a still more striking proof of the power of this relation: If we hold a large surface of red cloth before the sky or a wall so that the sunshine falls directly upon it, and then look steadily on it for a minute or two, we shall see it surrounded with a green border. Thus every color attracts to it more or less perceptibly another one, namely, its complementary color. This is the fact. Now, we will try to give the explanation:

If a ray of solar light falls direct upon a sheet of white paper, it will be reflected unbroken, and the sheet will remain white. If the ray, on the contrary, is led through a prism, it will be broken and decomposed, and the sheet will show a sort of solar spectrum, exhibiting the three primitive colors, red, yellow and blue, with their chief mixtures, orange (red and yellow), violet (red and blue), and green (yellow and blue). The sunbeam, indeed, which, when unbroken, gives white light, contains, when decomposed, a number of colored rays, and is thus able to produce every variety of color. The blue-colored body is blue, because it reflects the blue rays and absorbs all the others. The yellow-colored body is yellow because it reflects the yellow rays and absorbs all the others, and so on. If all the rays are equally reflected, the body is white; if all of them are equally absorbed, the body is black.

Now, two colors are called complementary if one of them reflects those rays which the other absorbs, and vice versa, so that if the rays reflected by the one were added to those reflected by the other, white light would be produced. Thus green is the complementary color of red, because red, blue and yellow give white, and green is a mixture of blue and yellow; orange, being a mixture of red and yellow, is the complementary color of blue; violet, being a mixture of red and blue, is the complementary color of yellow. But as the whiteness is the divine nature of light, and the eye is busy always in gathering and melting together the broken and decomposed rays with whiteness, the importance of that relation between two colors which makes them complementary will easily be understood. As the soul seeks for clearness and certainty by referring all the intricate cases of earthly life to the simple decision of the divine commandments, so does the eye seek for rest and repose by uniting the colors with which nature and art surround it into one single combination, making up white light. White light is the source of all the colors, and it is their soul. It is the invisible but powerful agent which spreads them into glowing life, and which gathers them into sweet harmony. To arrange colors so that they may unite with readiness and reflect white light is the great mystery of harmony of colors, but he who understands the phenomenon of complementary colors, and understands how to deal with it, has, indeed, lifted the veil from the mystery. Thus it will often occur that a large surface, if covered with one single color, for instance, a wall painted with a bright tint

of brownish red, will appear dazzling to the eye at the first moment, but in the next will be unpleasant. Here draw around the surface a border of due proportion and exactly of the complementary color, and the whole surface will become rich and splendid, and perfectly harmonious.

Harmony, however, although it is the supreme law to be observed in applying colors, is not the only one. There is harmony which is tame and dead, in which all colors have faded away, and such a harmony is of course an out-law. As it is not the aim of the divine commandments to remove all the beauty and comfort of earthly life, leaving only a barren asceticism, so it is not the aim of harmony to blot out all colors with white, or to subdue them into grey dullness. On the contrary, colors have an intrinsic value, and the most beautiful harmony is that one which comprises the purest, brightest and liveliest effect. But here again we meet with complementary colors. This relation is effective, not only in making harmony by softening and melting together the different colors, but it is still more useful in showing off the several colors which are placed in juxtaposition, by making them brighter and purer.

Mr. Chevreul, the learned French chemist and director of the dye works of the Gobelins, has published a very remarkable book about this matter, which Mr. John Spanton has translated into English, under the title: "The Laws of Contrast of Colors." A considerable number of facts relating to the influence of juxtaposition of colors are noticed and explained in this, but an attentive scrutiny of these facts will establish it as a general rule that a color, when placed contiguous to another, modifies it by throwing a shade of the complementary color over it, and is itself modified in the same manner. Thus when orange and green are placed beside each other in a pattern, the orange will throw a shade of its complementary color (blue) over the green, thereby making the green bluer and less yellow, and the green will throw a shade of its complementary color (red) over the orange, thereby making it redder and less yellow. When violet and blue are placed contiguous to each other, the violet will become redder and the blue greener, and so on. If the two colors juxtaposed are complementary, the juxtaposition will make them brighter and purer. The red will become redder and the green greener.

The explanation of this fact is this: As there is no body absolutely white or absolutely black, that is to say, a body which reflects or absorbs perfectly all the rays of a sunbeam, there is no perfectly red, yellow, or blue body. Every body reflects at once many differently colored rays, and it has this or that color only because this or that kind of colored rays is reflected in the greatest number. Hence the immeasurable number of tints and hues. When now a color is said to throw a shade of its complementary color over every other color juxtaposed, this means that every color induces the eye, which is always busy making white light, to catch every ray of the complementary color which may be reflected from a juxtaposed color. Thus the red color will induce the eye to lay hold upon every green ray which a juxtaposed blue color reflects, and it will thus make the blue greenish, while the blue will make the red as orange as possible. The painter, therefore, when placing two or more colors contiguous to each other, has first to ascertain how these colors will modify each other, for the juxtaposition will enhance or spoil the effect, according to the influence of

complementary colors. It will make the colors juxtaposed brighter and intenser, or it will make them dull and gray.

Some striking remarks in "Le Guide de Carrossier," about a coach exhibited in the Havre Exposition of 1869, give a very good illustration of this: "The ground-color of the body and of the carriage parts was ivory black. The carriage parts were set off with a stripe of ultramarine blue and two stripes of gold-yellow. The panels of the body were striped with one line of gold of the same breadth as those of the carriage parts. But here a very striking contrast appeared between the stripes of the body and those of the carriage parts. The former, applied on a black ground, appeared with all their lustre and brilliancy, while the latter, on the contrary, placed beside the blue stripe, appeared orange-yellow, and this to such a degree as to make the spectators believe that two entirely different shades of yellow had been employed." The cause was this: It was the blue stripe that threw its complementary color over the gold-yellow, and weakened its effect.

SPOTTING OF VARNISH BY MUD.

MR. EDITOR: We have been using the best American varnish with satisfaction for some time past, but we find one trouble. It is liable to spot when mud dries on it. Inclosed we send you a sample board, which has been varnished for at least two months. We covered one end of it with mud, such as our work is commonly exposed to in this part of Illinois, and let it stand over night, after which we carefully washed it off by pouring water upon it, and wiping dry with buckskin. You see the result. We have denoted the end on which the mud was put, and you see the gloss on this end is nearly destroyed. In washing it, all parts of the panel were treated alike. Several carriages have returned to us, which had been covered with mud and washed, on which the effect was very similar. If you can, through *The Hub*, throw any light on this important question, we shall read it with great interest. We like the working of the varnish which we have very much; but if mud continues to affect it in this way, we shall, of course be obliged to quit using it. We hope you will help us to discover the cause.

ROBERT S.

We have carefully considered the panel sent us by our correspondent, and have talked with several carriage-makers about it. In certain cases all varnishes are liable to retain mud spots, and this is particularly so with the highest grade of coach varnishes, including English, which are slow in drying. We are glad the subject has been brought before us, and there are some points we can speak of which may be useful to Mr. S. and to others of our readers who are troubled in a similar manner.

First, the Cause. Our theory in regard to the cause is as follows: The mud which is found in many parts of the West has a very corrosive action upon varnish when allowed to dry thereon, and this effect has often been ascribed to the lime which exists in the soil of that region. But as lime cannot long exist in a caustic state, but speedily becomes a harmless carbonate when exposed to the air and moisture, and never occurs in nature in an alkaline state, this theory is improbable. We

therefore look elsewhere. Any one who has traveled in the West and South must have noticed the extremely adhesive character of the mud in question, which, being composed in great part of clay, adheres with remarkable tenacity to surfaces with which it comes in contact. In our opinion, its action on varnish is similar to what takes place when oil stains are removed from a carpet, or from clothing, wood, or marble, by spreading a layer of pipe-clay on the spot. In this case, the oil is absorbed by the force of the capillary attraction with which the clay is endowed by reason of its porosity, and the stained surface is made clean. In the same manner when the clayey mud is left to dry on varnish, the water evaporates and *the porous clay acts upon the varnish, absorbing a portion of the oil from its surface, and the brilliancy is thereby destroyed.*

Accepting this theory as the true explanation of the trouble, we next turn to the cure.

The Cure. When varnish is thus deadened by mud, its lustre may be restored gradually by washing frequently with cold water and by sunning. Light and fresh air have a powerful influence in preserving a varnish, and when it is observed that it is growing dull, the carriage should be run out of the stable or repository and given a good sunning and airing. If advantage is taken of these restorers, our correspondent will undoubtedly find the carriages he mentions will look much brighter in October and November than they did at the time of his writing.

A Prevention. This is still more important than the cure, for "an ounce of prevention is worth a thousand pounds of cure." We know of but one way to avoid the spotting of varnish in those regions where clayey mud abounds, and that is to use a harder drying varnish during the summer months, which would offer greater resistance to the absorptive power of the clay.

We have sent the sample panel to our correspondent with one edge of the discolored part washed off with a strong soap, and we have requested him to return it to us after examination that we may follow out this question.—*The Hub.*

LINSEED OIL.

This is the most important of the drying oils, and forms a most important constituent in the manufacture of varnish. It is obtained by expression from the seeds of common flax, which is extensively cultivated in the European countries, both for the oil obtained from its seeds, and for its fibre, which is used for producing thread. It is said to be a native of Britain, and yet it appears that flax-seed was not sown in England until about 1533, when it was directed to be sown for the production of flax for the manufacture of fishing nets. The small seeds, commonly called linseed, are smooth and of a glossy brown color, and have an oily taste.

There are two varieties of this oil. The most valuable is the "cold drawn," which is extracted by cold expression, and is paler, less odorous, and has less taste than that obtained by aid of heat. By cold expression the yield of oil is from twenty-one to twenty-two per cent. of the seeds, and by assistance of heat, combined with a powerful and long-continued pressure, as much as twenty-eight per cent. of oil may be obtained. If a very pure oil be required, the process of cold expression must be pursued,

and as the utmost degree of purity is the great desideratum in varnish making, this quality is generally employed by makers of high-grade varnish. A very good oil, however, may be obtained by a steam heat not exceeding 200 degrees. The *marc* remaining after the expression of the oil is generally known as *oil cake*, and is an article of great importance to the agriculturalists of those countries in which flax is grown, being extensively employed, especially in the winter season, as food for cattle.

Linseed oil is the most important of the drying oils, whose characteristic is that when exposed to the atmosphere they become converted by the absorption of oxygen into a transparent resinous body of varnish, especially when they are in a thin strata; while non-drying oils, of which class olive oil forms an example, change under the same circumstances to a thick and viscid mass, and acquire rancidity and an offensive smell.

Saussur particularly investigated this action of air and oils, and found that newly expressed oil is scarcely affected by the oxygen of the atmosphere, but that after a variable period, sometimes of several months, but dependent upon temperature and exposure to light, it begins to absorb oxygen very rapidly, and to evolve hydrogen. He mentions an experiment in which a quantity of oil stood eight months and absorbed only three times its bulk of gas, but in the course of ten days during the last month it absorbed sixty additional volumes. The absorption then diminished gradually for three months, at the end of which time it entirely ceased, having taken up 155 times its bulk of the gas. This was with nut oil. Under certain circumstances the action of the oxygen may become so energetic as to lead to a considerable elevation of temperature and ultimate inflammation. This is particularly the case when the surface of the oil is greatly extended, as in case of oily wool or hemp, or greasy cloth, which, when left in a heap, frequently takes fire spontaneously, and often causes the destruction of mills, warehouses, and ships. This fact may be proved experimentally by placing paper, linen, or cotton, slightly imbued with linseed oil, in contact with sun and air, and they will quickly inflame, especially when in heaps. This spontaneous combustion is due to the rapid absorption of oxygen by the oil, the hydrogen of which is inflamed by the heat hitherto existing in a latent condition, but now given out from the gas at the moment of its absorption.

Linseed oil, like most of the vegetable oils, is obtained by expression, as follows: The seed is first passed between iron rollers in order to crack the shells. They are introduced into a hopper, through which, by means of a fluted roller, they are caused to descend between the crushing rollers, after passing which they fall into a receiver. They are then passed under two vertical granite millstones, which bruise them to a pasty mass, and this then heated to a greater or less extent by being placed in pans over an open fire, or in connection with steam or boiling water. The object of the heat is to coagulate the albumen contained in the seeds, and which would otherwise retain a large quantity of the oil, and to render the oil more limpid, and therefore more easily expressed. The mass is then transferred to a hydraulic press. The old method of pounding the seed in hard wooden mortars, with pestles shod in iron and set in motion by cams driven by a shaft turned by horse or water power, used to be used. The bruised seed was then transferred to woolen bags, which were wrapped in horse-hair cloth and squeezed

between upright wedges in press boxes. This arrangement, known as the watch mill, is still obstinately adhered to in some districts of England, Great Britain, and on this continent, being supposed to be preferable to the hydraulic mills and presses, which have in modern times almost entirely superseded the old method.

A LONDON PHAETON.

A HORSE-SHOW was lately held in London, in which was exhibited quite a variety of carriages. Indeed, this department is said to have been well represented, and very interesting. In the report of this show occurs the following brief description of the painting of a mail phaeton, which is spoken of as being particularly pleasing: "The ground was of deep invisible green, the picking-out of emerald green, with a fine line of orange running down the center of the picking-out. The effect of this was excellent." The deepest shades of green, blue, and brown are exceedingly pleasing in many kinds of dress and furniture, but they generally appear as black, until a lighter shade of the same or some other color is placed contiguous to them, causing their actual hue to appear. We can easily imagine how happily the emerald green affected its ground work of deep green, enlivening and brightening it. And again, the orange tended to make the emerald green still more effective.

Pen Illustrations of the Drafts.

FULL-SIZE LANDAULET.

Illustrated on Plate XVII.

THE outlines of this design are good throughout. Its points of construction need no detailed description. Price \$1,500.

DICKEY-SEAT VICTORIA PHAETON.

Illustrated on Plate XVIII.

THIS style of carriage is always pleasing, and the design which our draftsman has given us this month is no exception to the rule. It is a pleasant vehicle for the park, being light and airy and easy in motion if well constructed. The height of the wheels should be about 3 feet and 3 feet 10 inches. Brown moroccos are still popular for trimming this style of vehicle. The price will vary with the workmanship from \$400 to \$500.

EXCELSIOR ROCKAWAY.

Illustrated in Plate XIX.

THE above-named plate gives a very graceful design for a rockaway. The outlines are exceedingly pleasing, and we can suggest only one improvement, namely, to make the back line of the body cut straight, in order to agree with the other lines, which are generally angular.

PAINTING.—A deep brown, striped with a broad line of lighter brown. The stripe of lighter brown would be relieved and the carriage parts be made still richer by a delicate line of gold or of straw color down its center.

TRIMMING.—The color of the trimming should be a nice shade of brown, corresponding with either of the shades used in the carriage parts.

NEW YORK CHARGES FOR REPAIRING.—*Wood-work*: Hub, \$5; new spoke, \$1; rimming wheels, \$20; half-rim, \$3; drafting wheels, \$1; back spring-bar with carved center-figure, \$15. *Iron-work*: new tires and bolts, \$35; re-setting tires, \$8; tire-bolts, each, 25 cents; washers and oiling axles, \$2; re-setting axles, \$10; carriage-bolts, each, 30 cents. *Painting*: burning off old paint and re-painting, \$125; coloring and varnishing body, painting and striping rims, and varnishing carriage-part, \$100.

TURN-OUT-SEAT PHAETON.

Illustrated on Plate XX.

THIS drawing represents a road phaeton of a very pretty pattern, which we think will be pleasing to our subscribers. For park driving and for an open carriage generally this is well calculated, and when accompanied by a nobbily-dressed footman, perched in the turn-out-seat, a gentleman so inclined may make quite a show.

THE LEADING DIMENSIONS are as follows: Width of body, 45 inches; wheels, 3 feet 10 inches high and 4 feet; hubs, 3½ inches by 6½, with spokes and rims to correspond with the size of hubs; and steel tires, ¾ by 1 inch. Price, from \$450 to \$550.

NEW YORK CHARGES FOR REPAIRING.—*Wood-work*: hub, \$5; spoke, \$1; running wheels, \$10; drafting, \$1; axle-beds, each, \$4; perch, \$5; head-block, \$3; spring-bar, \$2; shaft-bar, \$2; shaft, \$4; pole, \$9; yoke, \$7.50; fifth-wheel bed, \$2.50. *Iron-work*: New iron tires and bolts, \$22; tire and carriage-bolts, 25 cents each; elliptic spring, \$15; new fifth wheel, \$6; re-setting an axle, \$6. *Painting*: Touching-up and varnishing, \$50; burning-off and re-painting, \$150. *Trimming*: Leathering shafts, \$6; re-covering dash, \$12; whip-socket, \$3.

ROAD BUGGY.

Illustrated on Plate XX.

THIS forms a very neat pattern of road buggy, and if agreeably painted would make a good appearance. In regard to colors, black lined with gold is always rich and always in style; but for this class of buggies a tint something brighter is generally better, provided the color used is in style. For the groundwork of the body and gears of the one in question, we would suggest a deep brown, lined either with vermilion or carmine. There are shades of straw color which are complementary to the deep shades of brown, this would make an excellent striping color, especially if set off and brought out by a line of light green on each side of it. The trimming should be brown.

DIMENSIONS.—Height of wheels, 4 feet and 3 feet 10

inches; hubs, $3\frac{1}{4}$ by $6\frac{1}{2}$ inches; spokes, $\frac{7}{8}$ inches; rims, 1 inch; steel tires, $\frac{1}{2}$ by $\frac{7}{8}$ inches; manufacturer's charge for the buggy, \$300.

Workman's charge for building the body, \$18; carriage part, \$8; wheels, \$10; shafts, \$3.50; spring-bars, \$3.

NEW YORK CHARGES FOR REPAIRING.—*Wood-work*: New set of wheels, \$75; hub, \$5; spoke, 75 cents; new rims, \$16; drafting wheels, \$1; new shaft, \$4; shaft-bar, \$2; spring-bar, \$2; axle-bed, \$4; perch, \$5; head-block, \$3. *Iron-work*: New ties and bolts, \$20; re-setting ties, \$8; tire-bolts, 25 cents; carriage-bolts, 30 cents; fifth wheel, \$5; re-setting two axles, \$6. *Painting*: Touching-up and varnishing, \$35; re-painting, \$75. *Trimming*: Re-covering dash, \$12; body-lining, \$40; leathering shafts, \$7; whip socket, including pat. fastenings, \$3; check-straps, \$1.50; oil-cloth carpet, \$2; velvet carpet, \$4.

Trimming Room.

SOMETHING ABOUT TRIMMING.

OF all the departments of coach-making, trimming is the most difficult for us to treat upon, partly because it is a mere matter of taste, and consists of small details so minute as to escape almost every general rule; and partly because we have been benefited with but little correspondence from the trimming-room. We beg our readers among the trimmers to consider the following article as only preliminary, and we hope they will favor us with an occasional letter under this head, giving their ideas and experiences.

One would think that the most important part of the trimmer's art consisted in choosing the colors. We do not think this is so, however. As far as we have observed it is the question of *fashion*, and not the trimmer's taste, which denotes and always has denoted the colors to be employed. At this time, for instance, eight carriages out of every ten are trimmed with brown. Some ten years ago an equal number were trimmed with grey. Every color seems to have had, and is likely to have again, its fashionable period, and the trimmer is, to a certain degree, bound to use the fashionable color, whether he likes it or not.

What makes a color fashionable? Sometimes it may be some *practical observations*. For instance: if, while most carriages are trimmed in brown, the weather should be unusually warm, dry, and dusty, for two or three seasons, grey would, doubtless, be fashionable thereafter, because dust is very discernible on brown, and nothing is more disagreeable than to sit down on a dusty seat. Or, if grey was then the fashion, and the season became very wet and rainy, brown would, doubtless, take its place, because grey looks, when wet, worse than any other color. Often it may be a *notion* which makes a color fashionable. When, for instance, a people wages war, the colors of their flags will appear in the ladies' dresses, in the trimmings of the carriages, in short, wherever colors are used, and always they will be hailed as something of

the greatest beauty, while at the same time the colors of the enemy's flag will be abhorred as something of the ugliest on earth.* Most often, however, *chance* is the mother of the fashion. When people have no time or no mind to find out for themselves what they like the best, they suffer chance to take care of the matter, and they adhere to its determinations the more firmly as there is no reason to adhere to them at all. The most unreasonable fashions have always proved to be the most tyrannical. Thus, every color whatever may happen to be used and considered nice in the trimming of a carriage, and oftentimes the trimmer has only to take the color which fashion dictates, without any exercise of his own taste.

As to the arrangement of the color chosen, there is a general rule which may well be followed. In trimming a carriage, the trimmer always uses two or three different colors, or two or three different shades of the same color, and he applies this difference of colors in order to brighten and set off the main color. He is compelled to use only a lustreless color as a main color, because rain, dust, and sunshine would spoil very soon even the most splendid lustre, and give the whole trimming a worn-out aspect. Thus he always has to vivify and never to soften the main color used. Now the rule is this: *Deep colors applied to a light ground soften and weaken it, while, on the contrary, light colors applied to a deep ground, lift, enliven, and brighten it.* That this is the true relation between bright and dark colors, and between light and deep shades, is easily proved. When going through a street every one will observe that signs painted with gold on black, or with white on blue, are more prominent and distinct to the eye than those painted with black on gold or on white. When a railroad train rushes by, the white inscriptions on the dark-red freight cars are easily read, while, on the contrary, the black letters on the yellow passenger cars cannot be discerned. The dark color seems to melt down in the bright ground, subduing its dazzling lustre, softening, weakening, perhaps spoiling it. The bright colors, on the contrary, shine out from the dark ground, making it purer, lifting and enlivening it. And, therefore, we think it a just rule for the trimmer always to use buttons, welts, ribbons, laces, etc., of a brighter color or a lighter shade than the groundwork.

We do not, however, lay much stress upon the arrangement, and none at all upon the choice, of colors in trimming. The chief point in the trimmer's art is the question of patterns; a nice pattern in the trimming executed with skill and accuracy can give an agreeable and inviting aspect to a heavy and not very happily planned body, while a poor and poorly executed pattern in the trimming very often has spoiled the body-maker's finest ideas, and made clumsy what was before light and elegant.

The first thing that is essential to a good style or pattern in trimming is that it does not impair, nor conceal, nor in any way interfere with the outlines of the body. It is now very common to fasten the flaps of the top outside on the body in such a way as to conceal entirely the distinct lines of the wooden body, and substitute the loose, irregular lines of the flabby leather covering. It may be necessary from several reasons to fasten the flaps outside

* When Austria and Prussia fell upon Denmark, many new and elegant "Droskies," or hackney coaches, in Copenhagen had to be painted and trimmed anew, because their bodies were yellow, their tops black, and their seats purple, and black, red, and yellow being the German colors, nobody in Denmark would ride in Droskies thus painted.

on the body; but, if so, the trimmer and the body-maker have to find out how to do it without spoiling the outlines of the body. The way by which it is generally done at the present time is not right; it gives the carriage an aspect of night-cap and preparation for bed. Even the lightest and most elegant carriage will look clumsy and drowsy when the loose, tattering lines of the calash are allowed to take the place of the sharp and firm lines of the body.

It is not sufficient, however, that the trimming avoids concealing the outlines of the body; it must, moreover, aid in showing them. In the inside trimming, for instance, of a landau, we should advise the use of two different patterns, one for the top and the other for the seats. The former ought to be plainer and simpler than the bottom, and with few straight lines, always drawn vertically, in order to produce an impression of lightness. The pattern to the seats may be ampler, more intricate and with curved and crossing lines, which will tend to give an impression of warmth and comfort and solidity. If the same pattern is applied to both top and bottom, one is likely to receive the impression that the top is as heavy as the body, and like this, made of wood. If the pattern of the top is smaller and more complicated than that of the seat, it would perhaps appear as if the whole carriage was overturned, the solid and heavy parts being uppermost, and the fragile and light ones beneath.

This statement, however, and, indeed, most of the remarks made in this article, need be illustrated by examples taken out of a larger experience than ours, and perhaps they need to be modified and corrected. They are meant as suggestions, and we shall be glad if they occasion our readers among the trimmers to become our correspondents upon some of the subjects which they merely outline.

TEXAS TRADE NEWS.

THE following article, on the condition of things in the South, has been kindly furnished us by Messrs. Robinson & Beard, carriage makers of Kaufman, Texas:

The press of the South is charged with the solemn responsibility of teaching the public how to grapple with the changed condition of the country, and how to adapt themselves to the present order of things. It is wholly immaterial how they were brought about, or who is responsible therefor—it is a duty we owe ourselves to make the best of our condition. But it is apparent to the most superficial observer that the public mind at the South is undergoing a great change in relation to many things. Before the war there was not a single cotton or woolen factory in Texas; now there are some ten or fifteen, and all are doing well. The mechanics in the South, in the days of slavery, were poorly patronized, and, as a general thing, were barely able to make a scanty support for their families. It is useless to disguise the fact, that slavery, like all other capital, was timed, and that it cannot bear competition with free labor. It was, therefore, the interest of the slaveholder to prevent the establishment of any extensive machinery which called for skilled free labor. With the loss of slavery these fears were dissipated, and every well-informed and reflecting man in the South begins now to see the importance of introducing into the country all kinds of labor-saving machinery. The mechanics of the South are generally unable to supply themselves

with the necessary machinery, and hence they are barely able to live by their daily toil. Take as an example: our readers will observe that spoke machines may be bought for \$250, capable of making from 1,200 to 1,500 spokes per day, and the necessary machinery for making wagon hubs, for the same price, that will make 450 hubs daily. Now, we are told by mechanics, that twenty-four spokes, or four wagon hubs, is a good average day's work for a hand. If this statement be correct, it will be seen that two hands, with \$500 worth of machinery, can do the work of over one hundred hands without any machinery. We make this calculation for the purpose of encouraging our home mechanics to procure the necessary machinery, and with it go to work like men who intend to do something for themselves and country.

For one, we would like to see the towns and cities of the South become temples of industry, instead of being the resort of loafers and gentlemen of leisure. It is a duty every one owes to his country to point out the best mode of advancing the community in which he lives. As this country is destined to be, at no distant day, the great railroad center of northern Texas, the most productive and desirable spot in the South, so we would like to see it become famous for its mechanical pursuits and manufacturing establishments. Our readers need not be surprised at our zeal; the public good and general prosperity of the country is the only reward we ask or expect. For the establishment of extensive factories, for making carriages and wagons, and the various labor-saving agricultural implements, no part of the United States presents better facilities than this. We are in the center of the bois d'arc region of Texas. The supply is exhaustless. The Bois d'arc fork of the Trinity river passes through this county, and its bottom is a dense forest of bois d'arc trees. This bottom will average two miles in width and fifty in length. The timber is of the most rapid growth, and its increase will be more than equal to its consumption. Persons living at the North, who have seen bois d'arc hedges, would be astonished to see a stately bois d'arc tree measuring two or three feet in diameter. This timber is the most durable in the world. We will venture the assertion that no living man ever saw decay in this remarkable timber. The running gear of a wagon that has been in constant use over twenty years is before us as we write this article, and yet the wood-works are, to all appearance, as sound as when turned out of the shop. There is an oil in the wood which fills up the pores and prevents either air or water from affecting it. No one can tell how long it will last, even when exposed to the weather. It is not affected by the rays of the sun, and hence it never shrieks. A carriage wheel made of bois d'arc will run until the tire is worn out, without having it to cut. But the greatest evidence of the superior quality of this wood, for wagons and carriages, may be estimated from the fact that a rough home-made bois d'arc wagon is worth about double the best Northern made wagon.

THREE-WHEELED OMNIBUS.

A MELBOURNE correspondent of the *Scientific American* gives the following description of a novel sort of street conveyance, which was recently patented by a Mr. Dyer, and has attracted considerable attention in Melbourne. The main principle involved in this new contrivance is the carriage of the load below the centre of gravity. It

will be seen that the arrangement of the seat is identical with that which is observed in many of the street cars used in Brooklyn and other of our American cities.

Instead of the passengers being inside the vehicle, as at present, they are all outside of it. There is no close box into which twelve human beings are stuffed to inhale each other's expirations and exhalations. There is no crushing up for a seat, or putting seven in a space intended for six and not too large for five. All inconveniences are avoided by placing the passengers back to back, instead of face to face. The new omnibus has only one hind wheel, instead of two; and this one wheel, placed in the center of the vehicle, does the work of the two now used. A light and elegant roof covers the two rows of seats, and reaches down in front far enough to shelter the passengers from rain or sun, but not far enough to obstruct their view of the opposite side of the street in which they are going. There are aprons also which draw up from the foot-board, as a protection in wet weather. The vehicle is therefore much lower than the present omnibus, being only about eight feet in height. A passenger steps in and out at one effort from the street into his or her own separate place or division. The large wheel at the back is quite concealed, and revolves in a closed case or sheath some twelve inches in width. The seats being on two sides and the end, and being comfortably padded at the back and cushioned, the vehicle will somewhat resemble that piece of furniture known as an ottoman, with arms to it and a roof overhead. There will be an immense economy in construction, as there are no doors, no glazing, no painting of sides, no internal paneling, and only three wheels, instead of four. The draft on the horses will be much lighter, as the friction will be diminished by one-fourth at least. In addition to this it is known that a wheel of large diameter is much easier to draw than one of small, so that there is no doubt but that the draft will be very largely lessened. The weight of the vehicle will not be more than two-thirds of the present one, and the cost also. The vehicle, nevertheless, is not adapted for bad weather.

Editor's Work-bench.

APPRENTICESHIP.

In England a boy who intends following a branch of coach-building is apprenticed at fourteen years of age, and held seven years, or until twenty-one. The parent usually gives the coach-maker, to whom his son is apprenticed, a bonus of £100 at the start, and in this case the boy receives four shillings per week for the first year, and one shilling per week additional for each subsequent year, so he receives ten shillings per week in the last year. If the parent is unable to pay the bonus, the boy works for two years without wages, receives four shillings per week for his third year, and one shilling per week additional for each subsequent year.

After the apprentice has served his time, the boss employs him for three months at the jour's wages, and the apprentice is then entitled to become a member of the

Society of Coach-makers. Afterwards, the boss sometimes recommends him to travel for two years, working in different cities and different shops, picking up ideas in each, and at the end of that time he may return to his former employer. This system of training a hand insures to the coach-painter a thorough knowledge of his important branch, and, by writing to the Secretary of the Society, a boss in want of a good mechanic, may be generally referred to a thoroughly educated one.

In this country a boy works for two or three years in various shops, without any binding, sandpapers a little here, stripes a little there, and varnishes a little in the other place, but, having no regular instruction in the art step by step, under an experienced boss, his knowledge is often very limited. There is in this country a want of method in the matter of educating boys to a trade, which is lamentable, as the present system produces but seldom a thoroughly educated mechanic. We would suggest that it would be of great practical value to the trade if coach-makers would consider this important matter, and make some arrangement by which boys could see that it is for their own interest to stick by the same employer and to give facilities for inducing boys to make the trade a study, and thus to become masters of the branch to which they belong. We will not offer any plans in this place for securing these results, but shall be glad to hear from our correspondents upon this subject.

HEARSE.

The hearse generally used in northern Europe consists of a heavy wooden platform, placed, without springs, on two very strong wooden axles, between four low, broad-tired wheels. The whole is painted black, without ornaments, and the platform is covered with a carpet of wool or velvet, trimmed with a border of white or silver and broad black laces. From the four corners of the platform rise four heavy columns, either painted white or silvered, and there support another platform or vaulted roof, which is painted black, and trimmed with festoons of black cloth and silver laces, and, from its top, rises a high cross. The coffin is placed on the lower platform, in front of which is a sort of coach-box for the driver. The horses are generally four or six in number, and, like the driver and vehicle, are trimmed in black and silver. They are hung with long mourning robes, and the driver wears a huge cocked hat, white neckcloth, and swallow-tailed coat.

This pageant moves along very slowly, and has, indeed, a solemn and pompous aspect. Nevertheless, the peasants, who always bear their dead friend to his grave, are much horrified at this carrying of a corpse on a vehicle, and consider the inhabitants of the larger cities, in which hearses are used, to be very impious. Yet the latter, in turn, are as much horrified at the American hearses

as the peasants are at hearses at all. They say that the corpse seems destined to take a pleasure-ride in this light and elegant vehicle, borne on springs, and provided with windows, and they discover precisely the same impiety in this custom of the American metropolis as the peasant discovers in their custom. Both the peasant and the European citizen are wrong however. They forget that one-half of our deepest and most serious feelings are nothing but the effects of fashion and custom.

FIRST COACHES IN ENGLAND.

THE word *coach* is defined by Chambers to be "the general name for a vehicle drawn by horses, designed for the conveyance of passengers, as distinguished from a wagon or cart for the conveyance of goods."

The invention of coaches, or inclosed carriages drawn on wheels, and intended for passengers, has been claimed by Hungary, England, Italy, France, Spain, and Germany. The name is derived by Wedgwood from the French word *coucher*, which means *to lie*. The earliest record of a coach found by Beckmann relates to about the year 1280, when Charles of Anjou entered Naples, and his queen rode in a *caretta*, a small but highly decorated car, from which the modern *chariot* was derived. It is believed that in early times these vehicles had very broad wheels, the only form suited for the wretched roads of those ages, and it is certain that those of early date were open over over-head. Many of the coaches used by the continental princes and nobles in the sixteenth century were closed only to the extent of having canopies, supported by ornamental pillars, and curtains of cloth, silk, or leather, which could be drawn aside easily. A glass coach, or coach with glass windows, is specially mentioned as being used by an Infanta of Spain in 1631. The traces of coaches were at first made of rope, and those only which belonged to the highest personages were made of leather. It is believed to have been in the time of Louis XIV. that coaches were first suspended by leathern straps, in order to insure ease of motion.

According to *The Carriage Builders' Art Journal*, as shown by an article which appeared in its first volume, "the first coach in England made its appearance in 1557, or eight years after its introduction into France. It was rudely constructed; and as the art of making was not yet understood in England, it was imported from the continent."

The first coach of English build was made in 1558, by Walter Rippon, for the Earl of Rutland. This date is given on the authority of *Chambers' Encyclopedia*. In 1564 the same builder made a showy vehicle for Queen Elizabeth, and later in the reign the royal carriages had sliding panels, so that the queen could show herself when desired. During the closing years of Elizabeth's reign,

and early in the seventeenth century, the use of pleasure-carriages extended rapidly in England, but they had to struggle for a long time against the opposition of the boatmen on the rivers, and then against that of the sedan owners and bearers.

A VETERAN CARRIAGE-MAKER.

CHARLES SWIFT, Esq., is a veteran carriage-builder of New York. He was apprenticed in 1822, at the age of fifteen, and has been in the business ever since.

This is a long business experience, and during the continuance of these forty-seven years there have been many and great changes in the carriage trade—as, indeed, in every thing connected with American affairs, which, as a rule, never stay long in a place.

SHOOTING FESTIVALS.

ON Saturday, the 17th of September, the employees of Messrs. Brewster & Co., of Broome Street, held their second annual shooting festival, at Lion Park, New York. About three hundred persons were present, and, although the day was unpleasant, the occasion passed off very satisfactorily, on the whole.

On the following Saturday, Sept. 24, a similar excursion was made by the employees of Messrs. J. B. Brewster & Co., who were organized into what is called the "J. B. Brewster Guard, of 25th Street." It came so near our time of going to press that we were unable to attend, nor have we received any report of the proceedings. We have no doubt, however, that they were exceedingly pleasant. These reunions of the mechanics and working men, when they can throw off business for a time, and enjoy social pleasure in company with their wives and children, are certainly beneficial, and they should be encouraged.

CARRIAGE-MAKERS' HARDWARE.

ON the last two cover-pages of this number we give the large business notice of Messrs. H. D. Smith & Co., of Plantsville, Conn. It is well and beautifully arranged, and has an intrinsic interest, as illustrating, and explaining, many of the newest styles of iron work used in carriages. It certainly denotes enterprise, and it comes, not from a new concern, but from an old and well-established house, which advertised with us in the same liberal manner when the NEW YORK COACH-MAKER was a new enterprise. That was many years ago, and we are glad to still claim the same friendship. The card speaks for itself.

EDITORIAL CHIPS AND SHAVINGS.

TAKING THE BARK OFF.—A young Highlander was apprenticed to a cabinet-maker in Glasgow, and, as a first job, had a chest of veneered drawers to clean and polish. After a sufficient time had elapsed for doing the work assigned him, the foreman inquired if he had finished. "Oich, no," replied the Highlander, "it's a tough job; I've almost taken the skin off my ain hands before I've got it off the drawers."

"What!" exclaimed the startled director of plane and chisel, "You are not taking the veneering off, you block-head."

"What I'll do, then?" said the staring apprentice, "I could not surely put a polish on before I take the bark off!"

PRINCE ERIE'S NOBBY TEAM.—Abbot, Downing & Co., of Concord, N. H., have just completed a fancy turnout for Com.-Col. James Fisk, of the Erie Railway. The vehicle is a four-wheeled nondescript, that comes nearer towards resembling an English drag than anything else, and weighs a thousand pounds. The wheels and woodwork are painted deep black, liberally striped and decorated in gold leaf, shaded by blue. The pole terminates in a hook of gold plate, and all the metal trimmings are rich with the same, and the three steps leading to the deep body.

The body is mounted on twelve springs, on which a rider might travel as free from jar as if upon a hay-rack loaded with feather beds. The decorated letter "F" is elegantly done in gold upon the centre of the carriage body. There are two seats, the accommodations being intended only for four, the cushions, backs, &c., being of brown morocco. The high, close top of enameled leather over the back seat is lined with brown broadcloth, to match the cushions; the driver is furnished with an additional cushion. The side lamps are in consonance with the general appearance, being heavily gilded in every part, outside and in, even to the lamps and reflectors. The glasses for the "glim" are of thick French plate, richly cut. An extra pole, lead-bars, &c., are furnished, which will be linked on with chains of silver-plated nickel.

The cost of this equipage was nearly \$4,000. It is drawn by six horses, who are splendidly adorned with gold-mounted harness, which alone cost \$3,000. The turnout entire, coach, horses, harness and all, is valued at \$35,000. Lester Wallack owns a similar establishment, which cost him \$25,000.

RUBBING STONE.—English rubbing stone admits of economy in rubbing down cracked work and rough-stuff. The advantage in preference to pumice stone is that it does not clog, and it wears a longer time, besides which it is uniform throughout, and free from pebbles or flint. Consumers should note that the grain ought to be cut across, and not lengthwise, and it must be kept in a damp place, else it will become hard. When hard, it may be softened by being placed in water for a day or two; but in such case it must be used at once, else if taken from the water, and left to dry, it will become harder than before, and will be fit only for powdering.

SHIP-BUILDING IN THE ANCIENT TIME.—The art of ship-building has been attributed to the Egyptians as the first inventors; the first ship, probably a galley, having been brought from Egypt to Greece by Wanaus, 1485 B. C. The first double-decked ship was built by the Tyrians, 786 B. C. The first double-decked of English make was built in 1509, to the order of Henry VII., and was of one thousand tons burthen. It was called the "Great Harry," and cost about \$60,000. Ship-building was first treated as a science by Hoste, in 1696.

DEFECTS OF TIRES.—It is a well-established fact that a new tire is always elongated by rolling on the road; at the same time a new felloe, however well seasoned, will shrink or expand alternately in wet or dry weather; hence the tire becomes loose from one or the other of these conditions. The tendency in such case is for the tire to slip and work inward, leaving the felloe exposed to

contact with the hard substances, which wears off the paint and flays the corners.

To avoid this a flanged tire is used by Messrs. Loos & Williams, carriage builders of this city, and, after an experience with it which dates back many months, they have become satisfied that it is a great saving in the wear of wheels. The distinguishing features of this invention of theirs are a flange on the outer edge of the tire, which protects the rim of the wheel from abrasion against curbstones, and another flange which sets into the rim and prevents the tire from being displaced easily.

A WAGONER AND ATTORNEYS.—Two country attorneys overtaking a wagoner on the road, and thinking to be witty upon him, asked why his forehorse was so fat, and the rest so lean. The wagoner, knowing them, answered "that his forehorse was a lawyer, and the rest were his clients."

AMERICAN LEARNING, 1798.—A manufacturer, not a carriage-maker, who had rapidly amassed a princely fortune, wishing to figure as a scholar, sent the following order to an eminent bookseller in Boston: "Sur, i want-to by sum Buks—as I am prodighouse fond of larnen—plese to send by the Bear here 5 hunder Dollers woth of the hansumest You hav.—Yours, &c.

STEPHEN JUMEL was among the early merchant princes of New York. One morning, in the year 1806, he was in company with several leading merchants, when a carman accidentally backed his horse into the Whitehall Slip, near which the merchants were grouped. The cart was got out, but the horse was drowned, and every one began pitying the carman's ill-luck. Jumel immediately held up a ten-dollar bill, and while it fluttered in the breeze, he walked through the crowd, exclaiming, "How much do you pity the poor man? I pity him ten dollars. How much do you pity him?" By this ingenious and noble conduct he collected in a few moments about seventy dollars, which he handed at once to the carman.

WIDE SPREAD

The circulation of the *NEW YORK COACH-MAKER'S MAGAZINE*, unlike those of most other publications of its class, is not confined mainly to the district in which it is published, but is of general interest all over the United States and abroad. It hails from the leading business center of this country, and is, therefore, the representative paper.

LITERARY NOTICES.

THE *EDUCATIONAL REPORTER* is the name of a new and well-printed exchange which has come to us. It is published in New York, by Messrs. Ivison, Blakeman, Taylor & Co., of 140 Grand Street, the well-known publishers of educational books, including the Spencerian series of Writing Books. We hear that the edition of this opening number of the *Reporter* numbered over forty thousand copies. This exceeds even the *NEW YORK COACH-MAKER*.

THE *ATLANTIC MONTHLY* for October has arrived and is unusually interesting.

CURRENT PRICES FOR CARRIAGE MATERIALS.

CORRECTED MONTHLY FOR THE NEW YORK COACH-MAKERS' MAGAZINE.

New York, September 20, 1870.

Apron hooks and rings, per gross, \$1 a \$1.50.
 Axle-clips, according to length, per dozen, 50c. to 80c.
 Axles, common (long stock), per lb. 7 c.
 Axles, plain taper, 1 in. and under, \$5.00; 1½, \$6.00; 1¾, \$7.00;
 1½, \$9.00; 1¾, \$10.00.
 Do. Swelled taper, 1 in. and under, \$6.50; 1½, \$7.00; 1¾, \$8.00;
 1½, \$10.00; 1¾, \$13.00.
 Do. Half pat., 1 in. \$9; 1½, \$10; 1¾, \$12; 1½, \$15.00; 1¾, \$18.00.
 Do. do. Homogeneous steel, ½ in., \$10.00; ¾, \$10; 1, \$11.00;
 long drafts, \$2.50 extra.
 These are prices for first-class axles. Inferior class sold from \$1 to \$3 less.

Bands, plated rim, 3 in., \$1.75; 3 in., \$2; larger sizes proportionate.
 Do. Mail patent, \$3.00 a \$5.00.
 Do. galvanized, 3½ in. and under, \$1; larger, \$1 a \$2.
 Bent poles, each \$1.00 to \$1.50.
 Do. rims, extra hickory, \$2.75 to \$3.50.
 Do. seat rails, 50c. each, or \$5.50 per doz.
 Do. shafts, \$6 to \$9 per bundle of 6 pairs.
 Benzine, per gall., 35c.
 Bolts, Philadelphia, list. 45 off.
 Do. T. per 100, \$3 a \$3.50.
 Borax, English, refined, per lb., 33c.
 Bows, per set, light, \$1.00; heavy, \$2.00.
 Buckles, per grs. ¼ in., \$1; ½, \$1.12; ¾, \$1.25; 1, \$2.00.
 Buckram, per yard, 16 a 20c.
 Buggy bodies, finished, \$15 to \$20.
 Burlap, per yard, 10 a 12c.
 Buttons, japanned, per paper, 20c.; per large gross, \$2.25.
 Carriage-parts, buggy, carved, \$4.50 a \$6.
 Carpets, Bruss., \$1.75 a \$2; velvet, \$2.50 a \$3.50; oil-cloth, 40 a 70c.
 Castings, malleable iron, per lb. 15c.
 Chapman rubber, \$1.25, doz. pr.
 Clip-kingbolts, each, 40c., or \$4.50 per dozen.
 Cloths, body, \$3.50 a \$5; lining, \$2.50 a \$3. (See *Enameled.*)
 Cord, seaming, per lb. 35c.; netting, per yard, 8c.
 Cotelines, per yard, \$4 a \$8.
 Curtain frames, per dozen, \$1.25 a \$2.50.
 Do. rollers, each, \$1.50.
 Damask, German cotton, double width, per piece, \$12 a \$16.
 Dashes, buggy, \$1.75.
 Door-handles, stiff, \$1 a \$3; coach drop, per pair, \$3 a \$4.
 Drugget, felt, \$1.25.
 Enameled cloth, muslin, 5-4, 32c.; 6-4, 50c.
 Enameled Drills, 45 in., 45c.; 5-4, 40c.
 Do. Ducks, 50 in., 65c.; 5-4, 60c.; 6-4, 80c.
 No quotations for other enameled goods.

Felloe plates, wrought, per lb., all sizes, 15 to 18c.
 Felloes (Rims), \$1.50 a \$3.
 Fifth-wheels, wrought, \$1.25 a \$1.50.
 Fringes, festoon, per piece, \$2; narrow, per yard, 18c.
 For a buggy-top two pieces are required, and sometimes three.
 Do. silk bullion, per yard, 50c. a \$1.
 Do. worsted bullion, 4 in., 35c.
 Do. worsted carpet, per yard, 8c. a 15c.

Frogs, 50c. a \$1 per pair.
 Glue, per lb. 25c. a 30c.
 Hair, picked, per lb. 40c. to 65c.
 Hubs, light, mortised, \$1.20; unmortised, \$1. Coach, mortised, \$2.
 Japan, per gal., \$2.00.
 Japan gold size, \$4.00.
 Knobs, English, \$1.40 a \$1.50 per gross.
 Laces, broad, silk, per yard, 60c. a \$1.25; narrow, 10c. to 16c.
 Do. broad, worsted, per yard, 40c. a 50c.
 Lamps, coach, \$10 a \$30 per pair.
 Lazy backs, \$9 per doz.
 Leather, collar, 23c.; railing do. 20c.; soft dash, No. 1, 14c.; do.,
 No. 2, 10c.; hard dash, 15c.; split do., 15c.; No. 1, top, 23c.; enam-
 eled top, No. 1, 23c., do., No. 2, 20c.; enameled trimming, 20c.;
 harness, per lb., 50c.; flap, per foot, 25c.
 Moss, per bale, 8c. a 15c.
 Mouldings, plated, per foot, ¼ in. 12c.; ¾, 13c. a 16c.; 1, lead,
 door, per piece, 30c.
 Nails, lining, silver, per paper, 7c.; ivory, per gross, 50c.
 Name-plates, \$5 for 25, \$8 for 50.
 Oils, boiled, per gal., \$1.20.

Paints. White lead, extra, \$12.00, pure, \$13.00 per 100 lbs.; Eng.
 pat. black, 20 to 25c.
 Permanent wood-filling, \$5.00 per gallon.
 Poles, \$1.25 a \$2 each,
 Pole-crabs, silver, \$5 a \$12; tips, \$1.25 a \$1.50.
 Pole-eyes, (S) No. 1, \$2.25; No. 2, \$2.40; No. 3, \$2.65; No. 4,
 \$4.50 per pr.
 Pumice-stone, selected, per lb., 7 to 8c.
 Putty, in bbls. and tubs, per lb., 5 to 7c.
 Putty, in bladders, per lb., 6 to 8c.
 Rubbing-stone, English, per lb., 9 to 10c.
 Sand-paper, per ream, under Nos. 2½ and under, \$4.50.
 Screws, gimlet, manufacturer's, 40 per cent. off printed lists.
 Do. ivory headed, per dozen, 50c. per gross, \$5.50.
 Scrims (for canvassing), 16c. a 22c.
 Seats (carriage), \$2 a \$2.75 each.
 Seat-rails, 75c. per doz.
 Seat-risers, Linton's Patent, \$2 per pair.
 Seats, buggy, pieced rails, \$1.75; solid rails, \$2.50.
 Shafts, \$12 to \$18 per doz.
 Shafts, finished, per pair, \$3 to \$4.
 Shaft-jacks (M. S. & S.'s), No. 1, \$2.40; 2, \$2.60; 3, \$3.00.
 Shaft-jacks, common, \$1 a \$1.35 per pair.
 Do. tips, extra plated, per pair, 25c. a 50c.
 Silk, curtain, per yard, \$2 a \$3.50.
 Slat-irons, wrought, 4 bow, 75c. a 90c.; 5 bow, \$1.00 per set.
 Slides, ivory, white and black, per doz., \$12; bone, per doz., \$1.50
 a \$2.25; No. 18, \$2.75 per doz.
 Speaking tubes, each, \$10.
 Spindles, seat, per 100, \$1.50 a \$2.50.
 Spring-bars, carved, per pair, \$1.75.
 Springs, black, 13c.; bright, 15c.; English (tempered), 18c.;
 Swedes (tempered), 26c.; 1¼ in., 1c. per lb. extra.
 If under 34 in., 2c. per lb. additional.

Two springs for a buggy weigh about 23 lbs. If both 4 plate, 34 to 40 lbs.

Spokes (Best Elizabethport), buggy, ¾, 1 and 1½ in. 9½c. each; 1½
 and 1¼ in. 9c. each; 1½ in. 10c. each. 10 off cash.

For extra hickory the charges are 10c. a 12½c. each.

Steel, Farist Steel Co.'s Homogeneous Tire (net prices): 1 x 3-16,
 and 1 x 1-4, 20 cts.; 7-8 x 1-8 and 7-8 x 3-16, 23 cts.; 3-4 x 1-8,
 25 cts.; 3-4 x 1-16, 28 cts.
 Steel Tire—best Bessemer—net prices: 1-4 x 1 1-8, 12c.; 1-4 x 1,
 12c.; 3-16 x 1 1-8, 13c.; 3-16 x 1, 13c.; 3-16 x 7-8, 14c.;
 3-16 x 3-4, 17; 1-8 x 7-8, 20; 1-8 x 3-4; 1-16 x 3-4 23c.
 Stump-joints, per dozen, \$1.40 a \$2.
 Tacks, 7c. and upwards.
 Tassels, holder, per pair, \$1 a \$2; inside, per dozen, \$5 a \$12;
 acorn trigger, per dozen, \$2.25.
 Thread, linen, No. 25, \$1.75; 30, \$1.85; 35, \$1.80.
 Do. stitching, No. 10, \$1.00; 3, \$1.20; 12, \$1.35.
 Do. Marshall's Machine, 432, \$3.25; 532, \$3.75; 632, \$4, gold.
 Top-props, Thos. Pat. wrought, per set 80c.; capped complete, \$1.50.
 Do. common, per set, 40c. Do. close-plated nuts and rivets, 75 a 80c.
 Tufts, common flat, worsted, per gross, 15c.
 Do. heavy black corded, worsted, per gross, \$1.
 Do. do. do. silk, per gross, \$2 Do. ball, \$1.
 Turned collars, \$1.25 a \$3 per doz.
 Turpentine, pr gl., 50c.
 Twine, tufting, pr ball, 50c.; per lb. 85c. a \$1.
 Varnishes, American, wearing body, \$6.50; elastic gear, \$5.50;
 hard-drying body, \$5; Quick leveling, \$4.50; black body, \$5;
 enameled leather, \$4.00.
 Varnishes, English. Harland & Sons', wearing body, \$8; Carriage,
 \$7; Noble & Hoar's, body, \$7.50; Carriage, \$6.50.
 Webbing, per piece, 6c.; per gross of 4 pieces, \$2.40.
 Wheels, \$12 to \$22.
 Wheels, coach, \$20 to \$40 per set; buggy, \$12 to \$18.
 Whiffle-trees, coach, turned, each, 50c.; per dozen, \$4.50.
 Whiffle-tree spring hooks, \$4.50 per doz.
 Whip-sockets, flexible rubber, \$4.50 a \$6 per dozen; hard rubber,
 \$9 to \$10 per doz.; leather imitation English, \$5 per doz.
 common American, \$3.50 a \$4 per doz.
 Window lifter plates, per dozen, \$1.50.
 Yokes, pole, 50c.; per doz, \$5.50.
 Yoke-tips, ext. plated, \$1.50 pair.