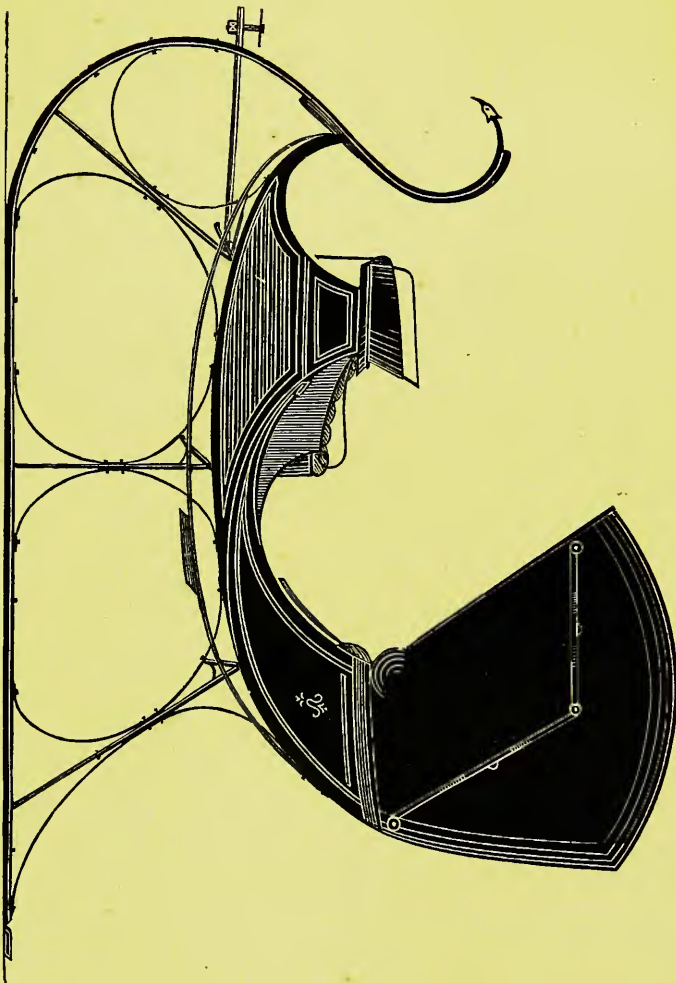
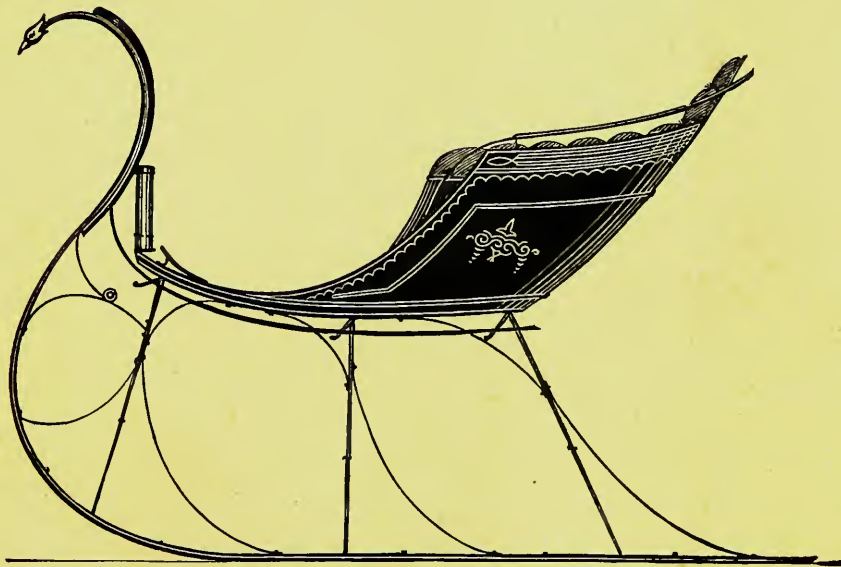


PARK PHAETON. —  $\frac{1}{2}$  IN. SCALE.  
*Designed expressly for the New York Coach-maker's Magazine.*



SIX-SEAT HALF-TOP VICTORIA SLEIGH. —  $\frac{1}{2}$  IN. SCALE.  
*Designed expressly for the New York Coach-maker's Magazine.*  
*Explained on page 58.*

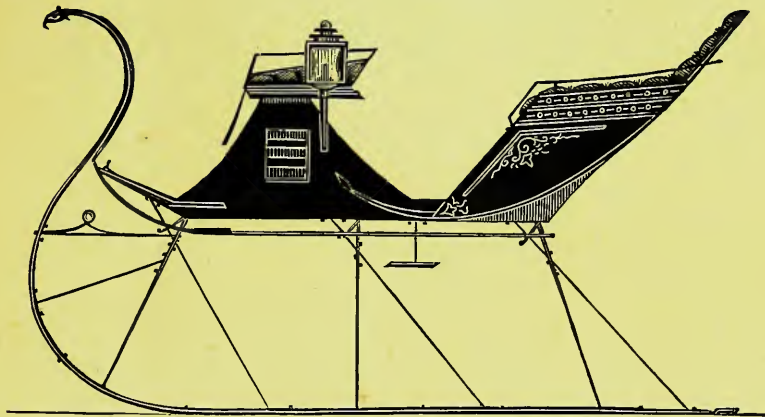


EXCELSIOR PORTLAND. —  $\frac{1}{2}$  IN. SCALE.

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

*Explained on page 58.*

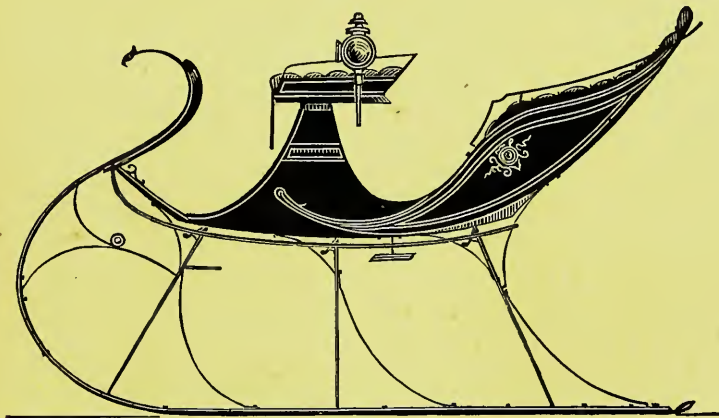




IMPROVED CUTTER. —  $\frac{1}{2}$  IN. SCALE.

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

*Explained on page 58.*



VICTORIA CUTTER. —  $\frac{1}{2}$  IN. SCALE.

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

*Explained on page 58.*





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

Vol. XII.

NEW YORK, SEPTEMBER, 1870.

No. 4

BUSINESS IN CALIFORNIA.

The Pacific Railway has given an impulse to the emigration to California, and large numbers of mechanics from the eastern states are going thither daily. We have received requests from various sources to give a detailed statement in regard to the present condition of business in California, and particularly in San Francisco. We have taken pleasure in making these inquiries, and in the answer which we herewith give, we are indebted to a considerable extent to statistics which have been forwarded to us from California in the form of reports and newspaper articles.

In the first place, it should be fully understood that although life is generally easy in California after one has become established in business, it is a difficult place in which to make a start. Having obtained employment, the road to success lies in paying due attention to the strictest rules of business, and there is no country in which this course pays better than there. The mechanic must endeavor to become very skillful in his trade, for there is no place in which a good workman gets better pay or is more sure of employment. He should stick to one place and one business as far as possible, and moreover he must be content with slow and sure profits, for there is so much wild speculation in California that strangers often imagine it is necessary for them to take part in it, and they lose their money before they suspect that they are in peril. Wages are high in California. The best evidence of the precise rates is found in the reports of the California Labor Exchange, which furnishes employment to about one thousand persons each month. The report made in June last says:

"The truth is clearly that the supply of laboring people has not been, and still is not sufficient to meet the necessities of the country, and that our laboring classes are the most prosperous, and ought to be the happiest people in the world. The demand has been practically for common laborers, farmers, carpenters, miners, blacksmiths, cooks, boys, etc. Servants, who, in Great Britain and in the Continent of Europe, command about \$40 or \$50 a year, have been eagerly engaged here at the rate of \$20 to \$40 per month as fast as they have offered. During the fourteen months preceding June, 1869, employment was furnished to 18,600 persons."

Among the 18,600 mentioned above were included

the following classes, and we have extended the wages paid them, as shown by the same report of the Labor Exchange:

| Occupation.            | No. employed. | Wages in Gold.  |
|------------------------|---------------|---|
| Blacksmiths.....       | 350           | { \$60 to \$100 per month, and board found.                                   |
| Blacksmiths' Helpers.. | 42            | { \$ 2 50 to \$ 4 00 per day.   |
| Coachmen.....          | 18            | { \$ 2 00 " \$ 2 50 " "   |
|                        |               | { \$30 00 " \$40 00 " month, and found.                                       |
| Cabinet Makers.....    | 87            | { \$ 2 00 " \$ 3 50 " day.  |
| Carpenters.....        | 1,445         | { \$ 3 00 " \$ 4 00 " "   |
| Carriage Painters..... | 32            | { \$ 3 00 " \$ 4 00 " "   |
| Carriage Builders..... | 8             | { \$ 2 50 " \$ 4 00 " "   |
| Farm Laborers.....     | 1,762         | { \$30 per month in winter—\$40 to \$50 per month in summer, and board found. |
| Harness Makers.....    | 39            | { \$40 00 to \$65 00 per month, and found.                                    |
| Hostlers and Teamsters | 58            | { \$30 00 " \$50 00 " " "   |
| House Painters.....    | 182           | { \$ 2 50 " \$ 4 00 " day.  |
| Ship Smiths.....       | 10            | { \$ 3 00 " \$ 4 00 " "   |
| Wagon Makers.....      | 34            | { \$ 3 00 " \$ 4 00 " "   |

It must be understood that the wages which are shown above are those actually given in May last to mechanics whose situations were obtained through the assistance of the Labor Exchange, and, probably, they do not show the highest rates given, as the best workmen can generally find employment without their help. Mechanics who work by the day get from \$2 50 to \$6 per day, and common laborers from \$1 50 to \$2 50 per day, or from \$25 to \$40 per month. And all the prices which we have mentioned are in gold, it must be remembered. Indeed, by careful examination, it appears that the rates are from 20 to 100, and, in some cases, even 200 per cent. higher than those paid to the same classes of laborers respectively in New York city. The wages of Chinamen are 75 cents to \$1 a day, if they find their own board, or from \$18 to \$20 per month, if it is found. Those who are "found" usually understand some English, and have skill which the others have not.

It is much easier to get employment in rough or mechanical work than in clerking or keeping books; and persons who have no money and no friends able to assist them, and no special knowledge that will certainly find



them employment, should not go to California with the expectation of an easy life. It is the men who expect to make a living by the shovel, the plough the plane, and the axe, who are wanted. The factories are few and small relatively, and in many departments the high wages make it impossible to compete successfully with the cheaper labor of the Eastern States and Europe. A few articles are excepted from this rule, most of which are bulky in proportion to cost, or inflammable.

In the manufacture of carriages California has progressed very rapidly, and is now very nearly self-producing in this particular. Indeed, since 1860, the exports of carriages have fallen off at least 90 per cent., the cause being seen in the fact that since that time there have been established several large carriage factories, where good work is produced at a price that is lower than the imported. There will appear no reason why this should not be the case, when it is borne in mind that all the workmen, as well as the greater part of the material, come from the Eastern States. It is said that the leading builders in New York get a higher price for their carriages in their own warehouses than can be obtained for the same when brought here; and the ruling prices of New York are generally higher by 10 or 15 per cent. than for the best work produced in San Francisco.

The manufactures of California are now nearly all in San Francisco, and are driven by steam; but there is an abundance of water-power along the base of the Sierra Nevadas, and there are many unoccupied sites for steam factories better than any now in use. There is room for great development of manufactures on the coast, and those persons who are establishing themselves there, so as to take advantage of the turns of events as they come, stand in a fair position to make fortunes. The building up of extensive mechanical industry is inevitable. The great distance of California from the North Atlantic States will make continued importation of many articles impossible; and an additional protection exists in the fact that in consequence of the national debt, the high tariff will probably be continued many years.

The fare from New York to San Francisco by the Pacific Railway is \$140, currency, for first-class passage, and \$110, currency, for second-class. It takes six days to travel these 3,300 miles. From Boston, the Erie Railway now offers first-class fare for \$139.25. It is very probable that the fares will be reduced as soon as competition grows, and as the distance is shortened by opening new routes. Even now emigrants are carried in freight trains from New York to San Francisco for \$75.

In regard to the expenses of living the California *Alta* says: "The price of boarding without lodging in the best hotels in San Francisco is \$12 per week, and the ordinary charge at good hotels is from \$2.50 to \$5 per day. The charge for board and lodging for poor people is from \$20 to \$40 per month, and for those who have means to live comfortably it is from \$40 to \$75. Houses well furnished, with six or eight rooms, bring from \$30 to \$40 per month when on retired streets, and from \$40 to \$80 on fashionable streets. In the smaller towns, the rents are from 20 to 50 per cent less. The cost of living is greater in California than in any other country, but it is not so great relatively as the rates of wages and the general profits of business. Indeed, the wages are so high that a man with a good trade and economical habits can accumulate a little fortune in ten or fifteen years, by putting his money in

the savings bank, which is, next to a home and a man's own business, the best place for money. The savings banks generally pay ten per cent. per annum and the interest compounds semi-annually, so as to double the principal in eight years."

In conclusion we append several rules which are applicable to persons making a start in business in California as well as elsewhere.

1. Stick to your craft and master it thoroughly.
2. Be industrious, working as hard to *save* a dollar as to *earn* one, living within your income, and laying by something every month, no matter how little it is.
3. Invest no money in business which you do not understand, or which you cannot oversee. If its conditions are different from those to which you are accustomed, commence slowly that you may learn the changes and at little expense. Beware of speculation.
4. Before leaving home, read carefully all the accessible books about the parts into which you intend going. To those who intend removing to California, we would refer them to the following books to begin with: "The Resources of California," by John S. Hittell, which treats of the climate, botany, agriculture, mining and scenery of the State. A similar work is "The Natural Wealth of California." "The Report upon the Mineral Resources," by J. Ross Browne, is devoted mainly to the mines.

As a rule, we are opposed to hasty and extensive emigration, but in a new country like these United States it is but a feature in its natural growth. To those desiring to emigrate, we know of no State which offers such advantages and so brilliant a prospect, and we believe that where the right sort of men take the step, and make up their minds to follow the ordinary rules of business energy and business prudence, California will make them a good home in the end.

#### COL. B. C. SHAW, OF INDIANAPOLIS.

WHEN the tocsin of war was sounded in 1861, thousands of brave hearts left the arts of peace behind and rushed to the defense of the starry flag; and then, again, after the fire and smoke of the conflict had cleared away, many returned to their office or workshop, quietly resuming the duties of civilians, and performing them as unostentatiously as they had done in acquiring distinction and honor as soldiers. That a man can be alike efficient in the storm of battle and the quiet walks of life, is illustrated by this sketch.

Col. B. C. Shaw was born at Oxford, O., in 1832, in which vicinity he remained during his early years. He received but a limited education in a country school, which was only open for three months during the year. In 1845 his father died, leaving him to the care of a mother who, though poor in purse, was rich in those Christian virtues which make a woman all that a woman should be; and to the precepts and principles instilled into him in childhood, by his mother, Col. Shaw attributes whatever success he may have achieved.

At the age of sixteen, having placed his mother in the most comfortable situation their limited means would permit, he started, on foot and alone, for Greensburg, Indiana, to become an apprentice in the shop of an older brother, who was carrying on the wagon trade at that place. Here he served his time as an apprentice, worked as a journeyman, and became a proprietor, in a small



way, until 1861, remaining at that town all the time, with the exception of two years, when he was out "on a tramp" as a journeyman.

In 1861, Mr. Shaw considered himself one of the seventy-five thousand loyal able-bodied men called for by President Lincoln to suppress the rebellion, and enlisted for the three months' service in company F, of the 7th Indiana Infantry, of which he was unanimously elected Second Lieutenant. Upon the organization of the regiment, Mr. Shaw was made First Lieutenant, and so served during the three months' service, in West Virginia. When its term had expired, the soldiers satisfied they had done their duty at Phillipi, Laurel Hill, and Carrick's Ford, were welcomed home with much enthusiasm.

Mr. Shaw did not intend to immediately re-enter the service, although war still raged on the Potomac, but the reverses at Bull Run and elsewhere made him think his duty was in the field, and required him to help recruit the grand army which was to drive back the rebels, now pressing forward elated with success. So, in August, 1861, he called some of his former comrades around him, and commenced the reorganization of his old company, and in five days the ranks were full. The company was organized as Co. G, of the 7th regiment, for the three years' service, Mr. Shaw being captain. The regiment, as is well known, served with great distinction in West Virginia, under Reynolds, Lander, and Shields, and in the army of the Potomac. In more than a hundred battles and skirmishes, the red blood of these sons of Indiana ensanguined the soil of the Old Dominion.

At the battle of Greenbriar, Captain Shaw was promoted to be major of his regiment for meritorious service. At the first battle of Winchester, where Gen. Kimball met and disastrously defeated Stonewall Jackson, Major Shaw performed a more rash and perilous act than one would suppose him capable of, judging from his quiet and unassuming manner. In the charge of the brigade on the celebrated stone wall, behind which was posted a battery and seven regiments of rebel infantry, they were led in close column within sixty paces of the rebel front, while grape and cannister cut through the ranks by platoons. The moment was critical; no order had been given to deploy into line, and the column had, of course, come to a halt. At this juncture, Major Shaw, growing impatient at the delay and slaughter going on, rode into the middle of the column, and ordered the deploy movement of the two regiments. This placed him in an extremely hazardous position in front of the enemy, where the bullets were flying thick and fast; his horse received five bullets through the body, and was killed, and Major Shaw was dashed to the ground. Here he lay, unconscious of what was going on, during the battle, while his gallant comrades, thanks to his daring, were deployed, and whipped the rebels.

From the effects of the injuries received in this battle, and the extreme hardships and exposure of the next three months, Major Shaw's health rapidly declined, until it was impossible for him to be of any service to the Government, and he, therefore, resigned his position, and returned home to recuperate and to attend to private affairs, anticipating that the comforts of a home would soon restore him to health.

In 1863, Col. Shaw became so reduced in health that his life was despaired of, and Gen. Rosecrans sent him a

discharge, accompanied by a complimentary special order.

After his return home he came to Indianapolis, and formed a partnership in the carriage business with Mr. S. W. Drew, on Market street, which continued for two years, when, in 1865, Col. Shaw started business by himself, in a small way, on Georgia street, where his present establishment now stands. His trade steadily increased until November 29th, 1868, when a fire swept away the earnings of years. The fire occurred on Saturday night, and on Monday, workmen commenced clearing away the debris, and rebuilding the shops, and business recommenced.

Early in the year 1869, a new partnership was formed with Mr. S. R. Lippincott, of Richmond, Indiana, and Mr. Conner, who had been a partner of Col. Shaw, at Greensburg, and had conducted business at that place for the firm, while he was in the army. The partnership still continues, and the firm is one of the best and most prosperous in the State, their business last year amounting to \$90,000.

#### PUBLIC DRIVES.

Most of the capital cities of the Old World have one source of healthful recreation entirely unknown among us. I allude to what may be called their public drives.

The Romans have theirs on the Corso, one of their principal streets, about two miles in length, inclosed with public buildings and splendid palaces. The Viennese have their favorite public drives on the Prater, a beautiful wood near Vienna, tastefully laid out for the purpose, and commanding fine views of the neighboring mountains. The Berliners have their public drive in their Unter den Linden, one of their principal streets, one hundred and seventy feet wide, and adorned with stately lime trees. The Parisians have their drive in the Bois de Bologne, a beautiful wood near the gates of Paris, adorned with lakes, jets, fountains, statues, and flowers. The Londoners have their drive in Hyde Park, one of the finest drives in the world, situated in the very heart of London. The Havanese have theirs on their beautiful Paseo, just outside of the city, and the Mexicans have theirs on their Alemada, a long, wide, and splendid avenue, in the city of Mexico.

Those public drives do for the whole body of the people of a given city what the drawing-room does for only a very small and a very select part of them; it brings them together at stated periods of the day. The public drive is a citizen's levee in the open air. Instead of the usual cake and wine, there is air and exercise. Instead of the accustomed cards and compliments the guests look out upon the sky, and venture or not at the beck and call of the sun and the clouds and the winds.

All the principal families in those cities, make it a point to appear on the drive at a certain time or times in the day or evening. Every conceivable style of jaunty and elegant equipage and turn-out may then be seen, from the cabriolet of the humble cit, to the coach and four, footmen and out-riders of the duchess, and the courtier, or of royalty itself.

On many of the best planned and conducted of them the carriages move up the way quite slowly on one side, and return on the other; so that friends and acquaintances on the drive are quite sure to meet and find an



opportunity to salute, if not to exchange congratulations with each other. The space between is occupied by equestrians, who are privileged to pass from carriage to carriage, where they happen to have friends, paying their respects and greeting each other. Where those public drives have become one of the social and recreative institutions of the people, as in the places that I have named, they constitute decidedly the most striking, the most pleasing, and apparently the most popular, cherished, healthful, and invigorating source of enjoyment in the whole city.

It is said that a Roman family of patrician blood would sooner give up one meal a day, and keep to their beds all morning to save firewood, than forego their drive on the Corso. The Viennoise, from the Emperor down, every evening flock in crowds to their beautiful Prater, overlooking the Danube; some in carriages, some on horse-back, and more on foot. The drive in Hyde park is peculiarly the show place of all England. There the stranger will see in one day more of the beauty and fashion of Great Britain, more of her statesmen, orators, poets, and divines, more illustrations of her wealth and her social customs, than he could see elsewhere with the aid of the best introductions in a month. It is a grand drawing-room of the privileged classes of the whole realm, and its windows thrown wide open to observers.

Nor do these drives constitute a source of recreation for the independent and privileged classes alone. Most of these public drives are lined with wide and well-shaded sidewalks; and these, at the same time, are usually well filled with pedestrians, who seem to enjoy the pagentry as well as the best mounted and provided on the drive.

It can readily be conceived that those public drives, where social union is added to healthful exercise and sweet air, should draw out daily very many of the invalid and the indolent, who would hardly avail themselves of the privilege, if that air and exercise was to be taken, as with us, without the savory salt of sociability. There is no one thing in all the world that so charms and cheers the heart of man as the sight of the human face and the sound of the human voice. For those he will leave instantly all other sights and sounds in the universe. But if, as on those great public drives, it is a place and occasion where acquaintance meets acquaintance, and friend meets friend, where notabilities congregate, and where man and woman both appear in their best estate and happiest mood, it is easy to see that it must constitute a most efficient aid and incentive to healthful recreation.

Now, while our country is young, while our cities are growing, and what is now the suburbs of the town will soon be the center, is the time for our citizens in every part of our land to move in this matter. No city should be without its great public drive. The time will come, and soon enough, too, when it will be life almost to the infirm and the invalid, length of days to the man of leisure, health and cheerfulness to the confined and weary, and a great ever-increasing public blessing to each and every one of her citizens, as well as to the stranger within her gates.

Some of the American cities have already moved in this matter; and among these prominent American parks may be mentioned with pride the great and justly celebrated one of this city, Prospect Park of Brooklyn, Fairmount of Philadelphia, and Druid Hill of Baltimore.

For some time past Boston has been discussing the subject; and, before long she will, doubtless, be provided with a place more suitable for the wants of the public of that city than Boston Common now is.

We suppose that coach-makers understand what a great help lies in the establishment of these pleasure grounds. The value of the result which accrues to them is beyond all estimate; for parks not only increase the demand for carriages very much, but they cultivate the taste, and thereby improve the styles. If a man has no pretty place in which to drive, it is useless for him to keep a fine pleasure carriage; but if such a place is afforded, and all his neighbors and his friends are seen there, he finds a carriage a necessity; and if he does not, his wife will. Every carriage-maker should say a good word for the park. It is his benefactor.

#### SONG FOR HOOAM AN' T' SHOP.

TUNE—"Oh! I've just mended t' fire w' a cob."

An English friend has kindly written out for us this old Yorkshire ditty, which, we think, will interest many of our readers. It is a puzzle, as it abounds in colloquialisms which obscure the meaning in some cases, but the moral is good.

NAH, lass, oh've brout t' money to neet,  
Weehabt even 'avin a gill;  
For wouse tha shall doo as tha loikes,  
An' spend it just which way tha will;  
But tha knows t' house mun look strait and clean,  
If oh'm not to be allis gooin' aht;  
If oh fond ony comfort at hooam  
Oh should'nt gooa rakin abaht.

Tha knows when oh goo ta t' Cross Keys  
Oh havn't ta wait for me tea;  
Y'beers ready as soon as oh call,  
An' o'hm oll reight at wouse—dost 'a see?  
There's allis a reight jolly fire,  
And t' papers fur them as can spell;  
An t' landlord as pleased as Punch,  
To 'and yer a leet wi a spell.

But tha knows as oh'd rayther cum hooam  
An' 'ave a warm drinking wi thee;  
If tha would but 'ave t' things reight and square,  
An' oh' addent ta wait fur me tea.  
Sooaah nah shall see what ta'll do:  
Here's thirty shillin to spen;  
That's enough to buy all we shall want,  
An' tha'll 'ave summat left fur thyssen.

There's a stake i' th' oven just dun;  
An' here, ready mashed, is thee tea,  
Here's sum bread at oh've just baked mysen,  
An' sum butter as fresh as can be.  
Tha'll find it far better than beer  
Wi thee stomach and 'ead ta agree;  
Tha shall ollis 'ave comfort enuff,  
If tha'll but bring t' money ta me.

Ther's a clean shirt on t' astner ta warm,  
Soa get thyssen washed when tho's dun,  
An' we'll then 'ave a short woke dahn't tahn,  
Ta see if ther's onn goin' on;  
An' oh mon't forget while we're aht,  
Ta get some new shirtin' for thee.  
Tha shall ollis 'ave comfort enuff,  
If tha will but bring t' money ta me.

An' soon tha'll be able ta get  
A new sewt o' cloas ta the back,  
(A noist sewt for Sundays tha-knows.)  
Weehabt 'aving ta gooa ta t' cheap-jack.



Oh shud loike ta see thee look spiff  
As when furst oh kept cump'ny wee thee.  
Tha shall ollis 'ave comfort enuff  
If tha will but bring t' money ta me.

An' we'll get toathy moor thing fur t' house,  
A clock and a bit of a rug,  
A sofa an' a' arm chair for thee,  
Fur oh know as thee loikes to be snug;  
An' tho'll seehah I'll keep it all streight,  
An' as clean as a palace fur thee.  
Oh'll defy t' Croo Keys or owt else,  
If tha will but bring t' money ta me.

### THE PAINTER'S SECRET.

*Continued from page 40.*

THE sad convoy slowly made its way through the streets till it stopped in front of a house, the windows of which were all closed, with the exception of the two upper ones—those of Castano's room.

"He is not in bed yet," said one of Domenico's servants.

"He is never idle," returned the other; "I believe he paints in his sleep!"

"Haste! Let me but see him!" the dying man faintly uttered.

One of the attendants pushed forward before the rest, to give some little notice to Castano of the catastrophe. Had a presentiment of the fearful sight that awaited him preceded the announcement, so that, as the door opened, Castano appeared panting, as if after a long race, and gasping for breath, with laboring chest and dilated eyeballs, as if under the influence of some terrible nightmare? None doubted but that it was the sudden shock thus breaking upon the late vigils of this devoted lover of his art that had made him thus—with cheek pale with horror, and palsied limbs, and teeth chattering together—stand gazing on the form of his murdered friend. The bearers now laid their sad burden on the bed, displacing a dark mantle as they did so.

Had the fresh blood-drops staining its folds been there previously, or had they fallen from the dying man as they lifted him to the couch?

And now Domenico took the cold and trembling hand of Castano, and, feebly but tenderly pressing it, said to him, in broken accents—broken, not by his own groans but by those that every moment burst from his pupil.

"There is no hope. I know not whence came the blow. I had no enmity to any one, though I had no friendship for any one save you, dear Castano! I did not know that you loved me so much. This box contains my will, and in it is my secret. I ask you only to finish this—my last picture. Pledge yourself that this will be done to-morrow."

Castano spoke not, moved not. His whole attitude, his every feature, told not of grief, but of desolation and despair. All night he sat by the couch of Domenico. It was a relief to turn from that ghastly face, and the glare of those tearless eyes, to the countenance of the dying man.

The old painter lingered until the middle of the next day and then expired in the arms of his heir. That very day, to the surprise of all, Castano set to with vehement energy, and the picture was finished with coloring of extraordinary richness and brilliancy, and of the same consistence and durability as that of the master. The longing

desire of his soul was gratified, the object of his life attained; but how different was now the estimate of the object, and the price he had paid!

*He had murdered his friend that he might put oil a few years sooner in his coloring!*

The shout from the pupils, whom he had assembled, as they supposed, to exhibit to them the proof that he was indeed master of the secret for which they knew not that he had paid such a fearful price, was hushed into a dead silence as they gazed upon him. Instead of the triumphant glance of successful art, they met the despairing look of that sunken eye; instead of the cheerful accents of hopes of future unchecked progress, they heard the hollow tones in which he told them his work was forever ended, his purpose forever broken off; and instead of proud self-gratulations and haughty consciousness of being their master, and henceforth unrivalled amid his cotemporaries, there came the confession of his wretchedness and guilt, and solemn warning to beware of the sophistry that deludes into the belief of exceptionable exemption from keeping the universal and immutable law of God, in fancied peculiarity of individual circumstances.

"I succeeded in deceiving myself; but God is not mocked, and this hand can never hold a pencil or mix a color. But," he continued, "I will not tempt you as I was tempted. The secret shall be yours."

And he instantly read for them Domenico's will. And thus it is that the artist's cherished secret—the secret of painting in oils, the art of staining indelibly—has, from palette to palette been transmitted to us of later generations.—*Western Soldier's Friend.*

### CARRIAGE LIBRARY.

A LIBRARY is a powerful educator, and we believe it would be of great value to both employer and employes 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 present the following list of 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 good a 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.

"ENGLISH PLEASURE CARRIAGES." By W. B. Adams. Published in London in 1837.

"CHEVREUL ON COLORS." By M. E. Chevreul, Director of the Dye Works of the Gobelins in Paris. Translated by John Spanton, and published in London. Finely illustrated by 17 colored plates.

"HINTS ON HOUSE-PAINTING." Treating of Painting and Colors, and How to Use them. By J. W. Masury, of New York. Price, 50 cents.

"HOW SHALL WE PAINT OUR HOUSES?" By J. W. Masury, of New York. Contains many useful suggestions about paints and contrasts of colors. Price, \$1.50.

"PAINTER, GILDER AND VARNISHER." Treating of



Painting, Gilding, Sign-writing, Coach-painting and Varnishing, together with appendix giving a synopsis of Chevreul's Principles of Harmony and Contrast of Colors." Price, \$1.50.

"CONSTRUCTION OF WHEEL CARRIAGES:" An essay by Joseph S. Frey. Published in London in 1820. Rare.

"TREATISE ON CARRIAGES AND HARNESS." By W. Felton. 3 volumes. The copies in our possession are from the third edition, and dated 1805. The original edition was published in 1796 in London. Very rare.

"ESSAY ON THE CONSTRUCTION OF ROADS AND CARRIAGES." By Richard L. Edgeworth, F.R.S. Published in London in 1813.

"ENGLISH CARRIAGES." By F. W. Fairhold, F.R.S. Three chapters in Art Journal for 1847.

"ARTISAN'S REPORT" on Paris Exposition of 1867.

"REPORT OF JURIES," London Exposition of 1851.

"THE HUB," a monthly journal for the carriage-shop, published in Boston, and edited by Geo. W. W. Houghton. Price, 50 cents per year. 1 volume.

"THE HARNESS AND CARRIAGE JOURNAL," a weekly, published in New York. Price, \$3.50.

"THE INTERNATIONAL JOURNAL," published in Philadelphia. Price, \$3.

"THE NEW YORK COACH-MAKER'S MAGAZINE." \$5 per year. This is now in its twelfth year. We give below a brief description of the eleven volumes which have been published and the prices at which we can furnish them.

These volumes furnish designs of about 475 vehicles, including sleighs; 750 *inside* engravings; 50 ornaments for the painter; and 50 original monograms. In a word, the contents (nearly all of a practical character) possess a *living interest*, which makes them valuable as a prominent fixture in the office of every American coach-maker. The eleven volumes cost but \$35.

Vol. I.—June, 1858, to June, 1859. In numbers, \$3. Bound, \$3.50. Contains among other things, examples in the French rule, applied to American carriages; lessons in carriage-drafting; the history of coach-making; and the biographies, with portraits, of James Brewster, Jason Clapp, and Wm. D. Rodgers.

Vol. II.—June, 1859, to June, 1860. In numbers, \$3. Bound, \$3.50. Besides a variety of other matter, this volume contains lessons in the French rule; the conclusion of the history of coach-making; the entertaining biography of Caleb Snug, Coach-maker; and the biography and portrait of John C. Denman.

Vol. III.—June, 1860, to June, 1861. In numbers, \$3. Bound, \$3.50. Among the contents are, the Anglo-French rule; siftings from the diary of a coach-maker; William's tramping coach-maker in the Western country; instructions in painting, under the head of "Gossip for the Paint-shop;" and the biography and portrait of Robt. N. Campfield.

Vol. IV.—June, 1861, to January, 1863. In numbers, \$3. Bound, \$3.50. Contains—what a traveling jour. saw "out West;" rise and progress of carriage-making in England; motive-power of wheel-carriages; how to paint a carriage; and the biography and portrait of H. S. Williams, &c.

Vol. V.—January, 1863, to May, 1864. In numbers, \$3.50. Bound, \$4. In this volume, the motive-power of wheel-carriages is concluded; composition of paints; the Tierville Miscellany; Roman carriages; the biography and portrait of the Editor, &c.

Vol. VI.—June, 1864, to June, 1865. In numbers, \$4. Bound, \$5. Contains more of the Anglo-French rule; a complete history of the perch-coupling *nuisance* (with diagrams); mechanical power and friction; Ede's work on steel, complete; an amusing history of the early opposition to coaches; the biography and portrait of Henry Harper, &c., &c.

Vol. VII.—June, 1865, to June, 1866. Very scarce. Bound, \$6.50. Contains a complete dictionary of coach-maker technical terms; more examples in Anglo-French carriage construction; pictures from Pompeii; biography and portrait of O. E. Miles, &c., &c. *As we have but few volumes left, we prefer not selling this one unless in a set.*

Vol. VIII.—June, 1866, to June, 1867. In numbers, \$5. Bound, \$6. Contains a series of illustrations of ancient carriages; all about the clip-king-bolt affair; more of the French rule; improvements in springs from early times to the present; biography and portrait of Rufus M. Stivers, &c., &c., &c.

Vol. IX.—June, 1867, to June, 1868. In numbers, \$5. Bound, \$6. Contains a series of articles on Egyptian chariots; theory of colors; screw-driver discussion; French rule and a great variety of light carriages. The story of the Blacksmith's Daughter, by H. S. Williams, in six chapters, is worth all the volume costs.

Vol. X.—June, 1868, to June, 1869. In numbers, \$5. Bound, \$6. Contains a series of articles on Assyrian and Persian chariots; also the "Boss' Story," by the popular writer, H. S. Williams; a series of practical articles on coach-painting, blacksmithing, and trimming, and several chapters of the French rule as applied to American carriages.

Vol. XI.—June, 1869, to June, 1870. In numbers, \$5. Bound, \$6. Contains the "Adventures of Three Jours," by H. S. Williams; sweeps for scale-drafting; a treatise applying the French rule to the wood-work of carriages, translated directly from the French, and including all the latest improvements; the French rule applied to the framing of sleighs; a series of articles on the science of colors, and miscellaneous articles on coach-painting, blacksmithing, trimming, etc.

In subsequent numbers we shall publish lists of coach-builders' books which have been published in foreign languages. We have some in our own library in Latin, French, German and Italian, and we earnestly request our friends to assist us in swelling the lists.

#### DRIVING IN NEWPORT.

THE pleasantest time in Newport is between half an hour before sunset and dark. The sky and the sea are lighted up with golden, rosy, and purple hues, that extend from one horizon to the other, and span the hemisphere with the softest and most beautiful tints. The ocean seems to be dreaming of its own calmness, and the distant sails flash up against the blended cloud and wave like spirits risen from the deep. There is a hush, a sweetness, and a beauty over all the sea that fill the mind with rest, and wreath the future into fairest shapes. That is the time for driving, which, in spite of the absence of a beach, is the best pleasure we have. Ocean and Cedar avenues are kept well watered, so that a seat in an open carriage, behind a pair of good horses, insures a very enjoyable airing.

The turnouts here are generally handsome, but often



too showy and tawdy for good taste. Persons who claim to be sensible would do well, I think, to dispense with a liveried coachman, since he is the first acquisition that a wealthy nobody without culture or manners is certain to secure. It is easy to distinguish parvenus by their super-abundant display of liveries and coats of arms, when the fact is notorious that most of their ancestors had no arms to their coats. I do not wonder that Europeans laugh at our boasted republicanism, since the first effort of the common American, after he has made money, is to ape the nobility of the Old World. Our best people are not considered, and so it happens that we are made to appear like a nation of snobs and flunkies. Who has not been mortified abroad at the wretched folly of our countrymen, notably our countrywomen, seeking introductions at court, and obtruding themselves upon those who had nothing to distinguish them but rank and title? When will the average American learn that pretense alone is vulgar, and that the original spelling of the word gentleman was with three letters?

The most "stunning" equine-and-vehicular exhibitions are made of course by James Fisk, Jr., and after him follow Lester Wallack, John Hoey, the great believer in printer's ink, Helmbold, and various others, who are anxious to advertise their fondness for spending money for the sake of show.

#### CENTRAL PARK TURNOUTS.

In the Central Park there is seen as yet but one six-in-hand team, and twenty-five four-in-hands. Among the four-in-hands especially admired is that owned by Mr. William M. Tweed. The leaders are iron grays, and the wheel horses bays, with finely curved necks and graceful action. Colonel Fisk is soon to bring out his six-in-hand team, consisting of three black and three white horses. The harness for this team is thus described by a contemporary:

The bit-bosses which are to be fastened to the sides of the bits are of heavily plated gold, each bearing the monogram "J. F., Jr." The bits are of nickel plate. The martingales, which are gold-plate, are very heavy, and each of them carries a center-shield, on which the monogram again appears. The gag-drops are gold; so are the brow-bands and the coupling rings. Below each of the rings, a shield will dangle, and on this shield the Fisk monogram will again appear. The twelve rosettes to be worn by the horses will be of gold, each illustrated by the Fisk monogram. The hooks, tenets, hames, and buckles are all gold, as are also the drops, face-pieces, and pads. The hames will cost \$3,000, the mountings \$1,000, while the whole equipage, including horses and carriage, will cost \$35,000. Over one hundred and forty monograms appear on the harness.

#### Paint Room.

##### JAPAN GOLD SIZE.

The following essay appeared in *The Hub*, in reply to a prize offer, and out of about ten competitors it was the one which took the first prize, a watch. It was written by Mr. C. O. Wolcott, who was lately a carriage-painter in the factory of Henry G. Powers & Co., of Brooklyn, N.Y.,

but who is now, we understand, connected with Messrs. Masury & Whiton, paint dealers, of this city. It gives a good review of the Japan Gold Size which is beginning to be come established in this country:

Why is Japan Gold Size superior as a dryer to common Japan? To this question numerous answers can be given, and after a year of experience in its use I am able to claim the following advantages:

1. It will not cause paint to crack or flake off.
2. It is a good drier, and yet elastic.
3. It is a perfect binder and hardener.
4. It is very pale and does not discolor fine paints.
5. It will resist dampness instead of absorbing it.
6. Its use insures safety against the crawling of varnish upon color.
7. The ease with which it can be worked renders it possible for a poor workman to apply a good coat of color, thereby lessening the number of spoiled jobs.

8. It is preferable because seventy-five per cent. of Japan Gold Size will do more work and better work than one hundred per cent. of common Japan.

9. It is cheaper, as we shall try to prove in the end.

I make the above claims from actual experiments, and although I do not propose to take up each point alone and to discuss each separately, I hope to touch every vital point, and, if possible, to convince every practical and unprejudiced mind that the claims for Japan Gold Size are but *simple facts*.

It is a fact well known among carriage painters that common coach Japan is a brittle, lifeless substance, and so far as durability or any binding qualities are concerned, it is worthless. It is also very dark, and its use affects very materially the beautiful tints of our finest colors. Now, we will suppose that all first-class shops are using the Permanent Wood Filling, and if there are any who are not using it, let me say to all such that you are standing in your own light, and sooner or later you will discover that the men who keep pace with the age are excelling you in *time, finish, and durability*. Every painter who is not fortunate enough to hold a position in a shop devoted exclusively to the building of new work, knows that there are a multitude of small jobs to be done, such as spokes, hubs, parts of rims, perches, shafts, springs, and axles, etc., and those small jobs are looked upon by some as of very little consequence. But painters who are alive to the interests of their employers know that all such jobs are of *vital importance*. We are often expected to finish such work on the same day we receive it from the wood shop or iron worker's, and we are also expected to do them in a manner that shall make them lasting. Just now, let me ask—*have we ever been able to do this with lead and oil?* If this is not accomplished, how soon are we painters assailed as worthless. It is just here that the Permanent Wood Filling and Japan Gold Size step in, and in them the painter finds two friends which will insure him speed and durability in his hurried work. To illustrate this, let me give an example.

I receive, say, at 10 A. M., an old wheel in which five new spokes have taken the place of as many broken ones, and I am told that it will be called for at noon. I apply a coat of P. W. F. to the spokes, then wipe it off with a cloth, and at once apply color, mixed with Japan Gold Size. The spokes can be striped in fifteen minutes, and at the end of half an hour they may be finished with varnish. I do not pretend that such is a fine job, but as



an extreme case it illustrates well. I have done hundreds of small jobs in this way, and in no case have I ever seen one crack or flake.

Again, you may apply a coat of P. W. F. to a spring or any piece of steel the last thing at night, and give it a coat of Japan Gold Size color the next morning, and it will not crack. I have known a job done in this way to run five months and show no signs of giving way. It is very justly claimed that the Permanent Wood Filling is elastic; it is especially so when applied to iron and steel, and when we find a drier and hardener for our colors that can be used directly over this elastic coat in so short a time, is it not worthy the attention of every carriage-builder in the land? I submit the question to those painters who are to-day painting by the old method, lead, oil, and Japan, and ask—Can you with such dispatch turn out jobs that will stand for any length of time? We have been using Permanent Wood Filling and Japan Gold Size upon all our work, both bodies and carriage parts, for more than nine months, and have yet to see one carriage which has shown the slightest appearance of cracking or chipping off. By the use of the two articles above named we are enabled, in building a carriage, to make a saving of at least ten days' time over the old method of painting as practiced in New York, and a saving of from thirty to sixty days as compared with carriages built in some of the New England cities. We feel perfectly willing to test our work by the side of work done by the old method, and no matter how much time has been occupied in painting the latter, we firmly believe that ours will be found equal, in fullness, brilliancy, and durability.

It is a well-known fact that if color be made too glossy from the use of too much Japan, varnish will crawl upon it. But I care not how glossy color may be made with Japan Gold Size, I have never known varnish to crawl over it. And here we derive a great advantage over common Japan, as all of our colors are not always mixed by expert workmen, and they are liable therefore to trouble the varnisher sometimes in this way. Japan Gold Size is very pale, also, and does not mud your carmines, lakes, and other fine colors. It works very free, and will not curdle when mixed with raw oil, and colors mixed with it will cover well, and will not thicken. Any color mixed with this drier will resist dampness two hundred per cent. better than common Japan colors.

But I must hasten to speak of Japan Gold Size as a perfect binder. We will take a body, give it one coat of P. W. F., and, after a proper time for hardening, apply a coat of rough-stuff, mixed with common Japan as a drier and varnish as a binder, and I admit that varnish is a good binder, if the right kind is used and it is used in just the right proportion. We rub this to a surface, and feel quite satisfied with its appearance, for it looks well to the eye and feels well to the hand. But let us take a glass commonly used as a detector of counterfeit bank-notes, and if we examine our job through this glass, we shall find, to our dismay, that what looked and felt so well is a porous substance, ready to absorb our entire first coat of varnish, and in order that the surface may not show signs of pin-holes, we are obliged to apply coat after coat of varnish until the porous surface is filled.

I firmly believe that the greater the number of varnish coats we apply, the more we diminish our chances of obtaining what is most desired, namely, a perfect surface. For who at the present day makes a perfect flowing rub-

bing varnish? and where is the painter who can flow a body with our common varnishes and have no imperfections. Some may say—"My surface is perfect after I have applied my four coats of varnish." It may look so to you upon close examination, but let us look at the surface from a little distance, and how do you account for that wavy appearance? I think every one will agree with me in the opinion that after the body has been rubbed out of the rough-stuff it cannot be more level. Now, if our varnish does not flow *perfectly* over this surface, each coat that we apply is surely an injury to the surface. The question may be asked very properly—"how are we to avoid using so much varnish, or how are we to prevent our surface from being porous?" To my mind there appear to be two distinct reasons for a porous surface; in the first place, our rough-stuff may not be properly ground, and secondly, our binders are not strong enough to prevent the small, hard particles in our rough-stuff from falling out instead of rubbing down. But with Japan Gold Size as a binder, and all the materials properly ground, we are able to produce a surface *solid* and *compact*, which will hold out our first and succeeding coats of varnish, and we are in the full belief that with it we can produce, with three coats of varnish, a surface nearer perfection than with four or five varnish coats.

If these things are true, and I cordially invite investigation, I think any fair-minded man will concede that every claim of Japan Gold Size is based upon valuable points. Having proved all these things, of which I have written, by actual test and experience, they are to me *fixed facts*. And now, Mr. Editor, I leave it to such of your readers as are practical painters like myself to work out a decision as to whether Japan Gold Size is not *better*, *cheaper*, and *more durable* than Japan. At another time I will give you some figures upon the comparative costs of the two methods of painting.

#### CRACKS VERSUS GRAIN.

To what an extent has carriage-making improved in this country within the present century! Could the carriage owner of 1800 look upon the carriages of to-day there would be some surprise depicted on his countenance, for there would be great contrast between the lumbering stage-coach of his day and our light and airy vehicle.

But we wish to look into the future. "Upward, and onward" should be the motto of the carriage-painter. You must not expect much of use this month, however, for it is August, and with the thermometer at 120 and 130 degrees in the varnish-room, you can conceive that our poor painters get somewhat worn out; nor do you need so much, for every one has gone to the mountain lakes and the watering-places except the painter. When he goes, it is an event.

The fashions for this month are *nil*; the spring work is all out and the heavy fall work has hardly yet commenced; so we have but little to say on that point. I propose to write a little on a subject that merits great attention, and, to illustrate it clearly, I term it *Cracks versus Grain*.

It seems that we have now reached a point in carriage painting where it begins to be acknowledged by our most *expert painters* that we must have one or the other, cracks or grain; if we fill our bodies so that the grain is entirely and effectually hidden, we must submit to see the work



made unsightly, in a short time, by cracks. On the other hand, if we continue the present method, which aims to avoid cracks, then the grain is liable to show, and often so badly that it is nearly as unsightly as the cracks. This question should now be thoroughly discussed, for it is an important one to the trade.

The first point to be disposed of is this, "Is it true that we must have either cracks or grain, and if so, whose fault is it or where does the fault spring from?" If we look at painting as we remember it was done some ten years ago we shall not find the grain all standing out as it does to day, nor customers walking into the shops telling that painting is nothing more or less than a fraud. This evil has now become so glaring, and in connection with work otherwise so improved, that the customers find fault, and reasonably. A remedy must be found. I began this article for the purpose of getting the views of others rather than saying anything myself, but as it is unusual and rather poor policy to lay bare an evil without suggesting a remedy, I will touch briefly on two causes which, I think, have effected the present state of things.

The first is *time*, want of which has ruined many hundred jobs, and also the reputation of the men who painted them, for, oftentimes, no excuse whatever will be allowed to the painter. Yet, painting is the particular branch of carriage-making that either makes or mars a job. If the painting is not good, the job is sure not to give satisfaction; and yet all the carriage bosses are so unreasonable that, while they generally give time to every other branch, they expect the deficit of time to be made up when the job gets into the paint-room, the very place where it requires least haste, both for its beauty and durability.

The second is *cheapness*. And this evil is now increasing to a frightful extent, so much so that I do not believe there are many carriage-makers who make the paint-shop pay, if they employ good mechanics to do first-class work. Jobs are often taken with the painting at so low a figure that it is known no profit can be made; but the calculation is, "Paint cheap and make it up on the other branches that the customers do not understand so much about." Now, this is unfair to the painter; for why should his branch of the business be put down to the lowest grade? For instance, when the job reaches him a discussion something like the following often takes place:

*Boss*. Now, I want this job rushed through as quick as possible.

*Painter*. Well, to make a good job of it, it must be burned off.

*Boss*. Oh! I can't have that done; I shall lose money enough on it now. You must just rub it down a little and putty it up. It *must* go out this day week. You can make a good job of it in that time. I only had a month allowed in which to do it, and the wood-workers and blacksmiths have occupied three weeks. I can't disappoint one of my best customers, so you must get it done on time.

Painter subsides to his work. How can we wonder at cracked paint or grain showing through. We should wonder more if it did not.

These, I think, are the two great primal causes of cracked paint and grain showing through. In one case the paint is given time to dry only in part, and then it cracks; and in the other, the carriage is only skimmed with thin, quick-drying paint, and then the grain discloses itself through its ill prepared covering. Let the painters have plenty of time and good materials, and be paid suf-

ficiently to allow of good work, and there ought to be no trouble about cracks or grain.

I consider this subject of so much importance that I shall try to find time to say more about it in your next issue.

W. H.

### GREEN COLORS.

NATURE produces coloring matters corresponding to each of the three primitive colors—red, blue, and yellow—and their first mixtures—violet (which is formed of red and blue), orange (formed of red and yellow), and green (blue and yellow). All of these colors are found prepared in the workshop of nature, and art has to do but little in order to make them fit for use.

It has, nevertheless, been an object of eager study and indefatigable research to modern chemists to prepare artificial coloring matters to take the place of the natural ones. Nature has ideas of her own, and these do not always suit the wants of human life. Nature is benevolent, but she is aristocratic. She produces all coloring matters in two varieties. One is very abundant, and consequently cheap; but it is dull and without permanent luster. The other is bright and brilliant; but it is extremely scarce, and consequently expensive. Some of the most exquisite of natural coloring matters are worth two or three times their weight in gold. These, of course, do not suit the common wants. It is human to desire what is best, and we are too high-born to be content with any thing less. If nature will not give us the brightest colors in abundance, we strive to get rid of the inferior ones which she has lavished upon us, and we make it our aim to produce a coloring matter bright as the best, and cheap as the poorest product of nature.

The aristocratic character of nature has in no similar case shown itself more strikingly than in producing green colors. One of its varieties, the earth of Verona, is so common that it costs less than fresh air and cold water; but it is dull and lusterless. The other, the bright and splendid variety, the Malachite, is so scarce and expensive that even artists can hardly afford to use it.

The earth of Verona is found in the neighborhood of the city from which it takes its name, and in France, Germany, Hungary, on the island of Cyprus, &c. Its color, when seen in compact masses, is a dull sea-green, but it becomes clearer when pulverized. Like all earths containing magnesia, it is soft to the touch, and smells of alumina. When decomposed, it contains, according to Mr. Bertier's analysis:

|                        |       |
|------------------------|-------|
| Silicic acid.....      | 51.21 |
| Alumina.....           | 7.25  |
| Protoxyde of iron..... | 20.72 |
| Magnesia.....          | 6.16  |
| Soda.....              | 6.21  |
| Water.....             | 4.49  |

A little of protoxyde of manganese.

The Malachite is found in Siberia, the Ural Mountains, Tyrol, Saxony, Bohemia, England, &c. It is a natural carbonate of hydrated copper. As a compact mass, it is variegated with different shades; but when reduced into very fine powder, it furnishes a uniform green color of the utmost brilliancy. Its price, as above mentioned, is so high that even artists must renounce it, and it is thus almost useless to mankind; while, on the other hand, the earth of Verona, which is useful enough



because of its cheapness and solidity, affords no delight, on account of its lack of brilliancy.

Of all the attempts which have been made to invent a coloring matter combining the brilliancy of the Malachite with the cheapness and durability of the earth of Verona, that which produced the so-called Schweinfurt green was, doubtless, the most successful. This pigment, which is a combination of acetate and arsenite of copper, constitutes a very valuable color, giving all the various shades of green, from the deepest to the palest. The process by which it is produced is described by Mr. Liebig as follows:

"A quantity of verdigris is placed in a copper boiler, and dissolved in a sufficient quantity of distilled vinegar; to this is added a quantity of arsenic acid dissolved in water. These liquids, when mixed, precipitate a green substance, which is removed by adding more vinegar until the precipitate is entirely dissolved. Soon after the mixture boils, a crystalline grainy precipitate of a most beautiful color forms, and this precipitate must be carefully separated from the liquid, and washed and dried. To give the product, which is a little blueish, a deeper shade, it is boiled with one-tenth part of potash, which deepens the color and gives it luster.

"If the liquid which remains still contains an excess of copper, arsenic is added; if it contains arsenic, acetate of copper is added; and if it contains an excess of acetic acid, it can be used once more to dissolve verdigris."

A color known under the name of "green without arsenic" is sometimes recommended to take the place of Schweinfurt green, and has long been retailed through Germany, and much used. It may, indeed, be used with advantage, though it has not the brilliancy of the Schweinfurt green; but it is, nevertheless, poisonous.

C. P.

### RISING OF GRAIN.

A COMMON fault with carriage panels is the showing through of the grain after they have been in use for a short time. When this occurs it is generally in connection with jobs which would otherwise be very durable, for it may be stated as a general rule that the less body of paint you put upon a carriage, the less liable it is to crack or chip off. Indeed, were it possible to paint and varnish a carriage with two coats, and with a substance elastic and durable of itself, the finish would be exceedingly lasting, as the chief cause of chipping and cracking would then be removed. The remedies for cracking of paint are two: An elastic coat, and a thin one. But with a thin coat often follows the showing of the grain, and how shall that be remedied? Let us first examine the cause.

If we allow an unpainted wheel to lie on the shed during a wet or damp day the grain will rise, and it will do this by absorbing moisture into its pores and thereby swelling. If another wheel is covered with a coat of lead and similarly exposed, its grain will rise also, but to a less extent, for the lead will help to keep out the moisture, but will not do so completely as a general thing, for lead is porous. If another wheel is well coated with permanent wood filling, allowed to dry perfectly and then exposed similarly, this ought not show grain, as it is covered with a substance which claims to be a perfect anti-damp, and such is the testimony of those who use it. We

see by the foregoing that the absorption of moisture is the cause of grain rising, and one important preventive is to cover with an anti-damp substance."

But even when thus covered, grain will sometimes rise, and this is often regarded as very mysterious, when the closest examination would seem to show that no moisture could have penetrated the covering. Under these circumstances we have in several cases traced the trouble to a very simple origin. It was caused by moisture, and by the absorption of moisture, but this came not from without, but from the interior of the wood itself. In other words, the wood was not thoroughly seasoned way through, and some agency had brought the moisture to the surface. We have seen a job, primed with the permanent wood filling and exposed to the hot sun, show bubbles on the surface, and on breaking them we have found water within. Of course this did not come from without, where all was dry, but it was stewed out from the interior. And thus will the grain sometimes rise upon nicely primed carriages, and of course the better and more perfectly primed, the worse the trouble, for the moisture might find way to evaporate through a coat of lead, but through permanent wood filling, this would be impossible. Some have discountenanced the latter for this very reason, but in such cases it will be seen that virtue was counted as a vice. From this we see that another important consideration in preventing the rising of grain is to see that all the wood used is seasoned perfectly.

Use perfectly dry wood, and cover it with a coating which will totally exclude moisture, and you will not be troubled by the rising of grain.

### Pen Illustrations of the Drafts.

#### SIX-SEAT HALF-TOP VICTORIA SLEIGH.

*Illustrated on Plate XIV.*

WE are not much in favor of tops to sleighs, and cannot perceive their usefulness except as a sort of screen from the winds when traveling with it. In this instance the artist has set-off his design with considerable ornamentation, especially in the forward portion of the sleigh, which may nearly all be done by painting. The ground color of the body should be French gray; striping and under part, buff; and the fillings or the front quarters, Vandyke brown.

#### EXCELSIOR PORTLAND SLEIGH.

*Illustrated on Plate XV.*

THIS sleigh is drawn three-quarters of an inch to the foot, which it will be well for the mechanic to bear in mind. Portlands are becoming more and more fashionable in this country every season; the cheapness at which they can be sold proving a strong recommendation for them in the estimation of the public. There are some original points in this design, giving it a special recommendation in this instance, which we need not particularly



notice, the drawing being its own interpreter. Paint the ground blue, and stripe with orange and gold.

#### IMPROVED CUTTER SLEIGHTS.

*Illustrated on Plate XVI.*

THE first cutter an artist calls a "Gentleman's Promenade sleigh." How the term *promenade* can properly be applied to a sleigh we cannot understand, and therefore have left it out in our heading. Paint the groundwork of the body, lake; and the runner part, yellow; and stripe with carmine and yellow, or gold.

The second, a Victoria cutter, should be painted—the body (hind-quarter) and belt under the front seat olive-green, and the runner portion Solferino.

### Trimming Room.

#### ARRANGEMENT OF COLORS IN TRIMMING.

IN a Paris paper was recently published an article entitled "Cost of Carriages." Though valuable and interesting as a whole, it contained some rules of artistic coach-making, and, especially, rules of taste, which, even if true, would be of no practical value on account of their quaint minuteness. In publishing a translation a cotemporary pointed out those false rules by inserting the parenthesis, "This sounds Frenchy," thus guarding himself from the suspicion of any partnership.

There is one of these points of which we wish to speak, partly because it is singularly erroneous, and partly because we think a true criticism of it may have some intrinsic interest. It runs thus, "The shade of the lining, especially, should favor the complexion of the lady." It is, indeed, quite impossible to read this without smiling, for, if it contained truth, according to the principle of the division of labor, a consequence might be that we would have carriage firms which made coaches for blondes only, and others which made them for brunettes. But it contains no truth. It is a mere misunderstanding of the mutual influence of colors when placed contiguous to each other, and especially of Mr. Chevreul's doctrines about the simultaneous contrast of colors. Mr. Chevreul has shown that two colors when juxtaposed affect each other; and he has shown *how*, and *why* they do so. His observations are original and striking; but, although true and very valuable to the painter, they have, nevertheless, given rise to a great deal of misunderstanding and affectation among those who have misinterpreted them, and the ingenious author himself is not quite without fault. We think there is a circumstance influencing the laws of simultaneous contrast of colors which he has overlooked.

The laws of simultaneous contrast of colors, as established by Mr. Chevreul, are true when the two different colors juxtaposed are applied to the same body or to two bodies of the same order. If the colors, on the contrary, are applied to bodies of different kind, we think the laws are false. It is true that red and green are complementary colors, and that they are harmonious because they are complementary; also, that red, when juxtaposed to blue, will make it greenish, as the blue will impart to the red a shade of orange, according to the laws of complementary

colors, &c. But all this is true only on the condition that the two colors are placed contiguous on the same body; for instance, on a wall or carriage panel, or on two bodies of the same kind—or, on the upper and lower parts of a dress; but, if the red and green colors meet each other on bodies of different kinds, for instance, on the flowers and leaves of a plant, or on the cheek of a girl and a ribbon of her hat—they may still be fully harmonious in their juxtaposition, but they are not so because they are complementary; on the contrary, their power of influencing each other according to the laws of complementary colors is lost. It is true that blue and green are unharmonious, and make each other dull and lusterless; but a blue flower among green leaves is neither dull nor discordant; and nature has, perhaps, no view more enlivening and charming than the deep-blue mountain lake surrounded by the forest of deep-green fir-trees.

When Mr. Chevreul speaks about the arrangement of colors in dress and furniture, his remarks are generally true, because he has a keen and practised eye; but his explanations are often questionable, and what with him may be called a lack, or an error, degenerates, of course, with his followers into mere nonsense, such as is displayed in the sentence quoted, "The shade of the lining, especially, should favor the complexion of the lady." The shade of the lining may be said to have no power to favor the complexion of a lady, as, upon the whole, the color of a lady's dress has to be chosen, not with regard to her complexion, which is of comparatively small consequence, but according to the symbolical significance which naturally adheres, or has been attributed to a certain color, in order to make the dress harmonious with the occasion. A corpse wrapped in red would excite amazement and disgust, but only because red is thought to be the symbol of life and activity. An old lady dressed in pink would be ridiculous, but only because pink is thought to be the symbol of spring and youth. Color of dress has nothing to do with color of the skin. C.

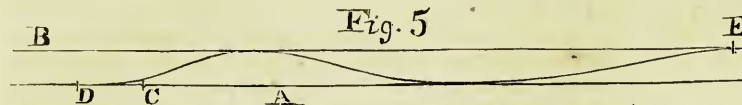
### Wood Shop.

#### TO OBTAIN A LEVEL WHEEL.

BY P. B. J.

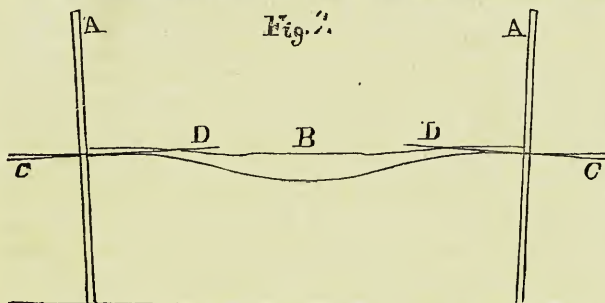
PRESUMING that our previous observations have been fully understood by the careful reader, we are prompted, according to promise in our last, to resume the task, and advance one step farther. In order to complete the former article, it is necessary to introduce a rule to lay out the perch, so that the fifth-wheel will be level when the job is set upon its wheels. This is shown in Fig. 5. First ascertain the difference between the front and back end of the perch, when the carriage is on the wheels. This can be done by ascertaining the difference there is in the height of wheels, and in the raise of the back and drop of the front axle-beds. We will say, for illustration, five inches—and draw two parallel lines, A B, five inches from each other. Next mark two points for the head-block and back axle-bed, the head-block on line A, and the bed on line B; now mark the size of the fifth-wheel, as shown by D C, and laying the board down by the rocker pattern, proceed to shape the perch, allowing it to raise at C three-eighths





of an inch, or the thickness of the perch-plate above the point C, keeping the points of the perch at lines A and B. Work from and shape the head-block even with the bottom of perch at D, or if you shave out the head-block the thickness of perch-plate, keep point C on line A, or level with D.

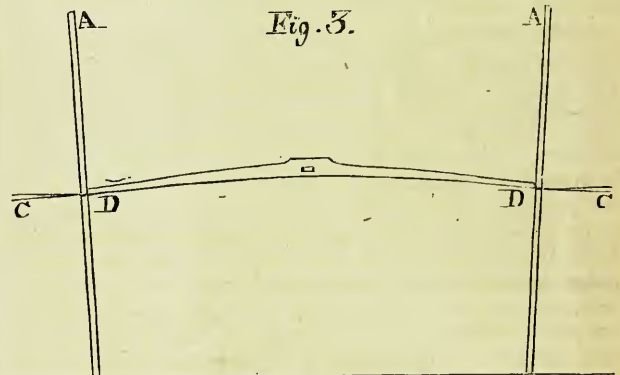
I will endeavor to show you how to obtain the patterns for the axle-beds. In doing so, three points must be considered in its formation: *First*, Its length, which should remain undetermined until the wheels have their tires set. *Secondly*, Its shape, which depends altogether on the shape of the body to which it is applied. Should it be like that of Fig. 5, the front bed would need to be dropped to the center of the axle-arm. *Thirdly*, To shape the ends, so that when the axle is fitted to it, the arms will incline to their proper set, and thereby avoid a short bend at or near the shoulders of the axle. The difficulty caused by this bend, I have no doubt, many have met, who have cased an axle. Now, in order to accomplish the former and avoid the latter, we will follow the rule as illustrated in Figs. 2 and 3. Fig. 2 shows, as we will suppose, a bed four feet long,



dropping on a line with the center of the axle-arm, as at line B. Now we have the length and the drop, we will proceed to shape the ends, which should be done according to the dish of the wheels. We will suppose the wheels to be dished three-quarters of an inch, which will throw each wheel (as you have seen in the manner of setting axles), on an angle of an inch and a half in its height, as shown by A A, representing the rim of the wheel. Now, in order to have these wheels revolve and still keep the same angle in the center, the arm will be required to be placed through it, square to the perpendicular line of the rim, as shown by the arms C C. You will notice that these arms incline downward; therefore, the ends of the axle-bed will require to have a slight turn, as will be seen by the lines D. For practical purposes an eighth of an inch is sufficient in the length of the arm (six inches).

In making, the pattern the lines A A, and the arm C C, can be omitted. They are merely introduced here to illustrate the point. The front bed being completed, we will commence upon the back one; as in the front, we take into consideration the dish of the wheels, in this case with the three-quarters of an inch dish. It throws each wheel on an angle of two inches in its height, as shown by A A, Fig. 3. It also shows a bed of four feet in length, and raises one inch and a half, and in order to give it the proper shape on the ends, it is necessary to follow the rules laid down in Fig. 2, in regard to the points D and C.

There is no knowledge more cheering and satisfactory to the practical carriage-maker than that which imparts the evidence that his plan or design is correct in every point of view. With this assurance, he



proceeds to the execution of his work with cheerful heart, and mind free from doubts and fears as to the results of his labor. This, as the reader understands, is the object of the principles which form the basis of our remarks under this head. Hence the great importance of every carriage-maker understanding the different rules laid down by practical experience.

#### CARRIAGE DRAFTS.

It has always been our purpose to give our drafts of carriage fashions in as exact proportions as possible, although, knowing that oftentimes we thereby sacrifice some beauties. We frequently see points in which we might decrease the proportions of this part, or increase that, and make the picture more beautiful, but we have conceived that literal exactness is of more importance. In this fact will be seen one of the difficulties in pleasing every one with our charts. Some desire truth, from which they may work, while others desire ideal beauty, for the inspection of their customers. The following note, which we have extracted from a French journal devoted to this subject, shows how others have felt the same difficulty, and have adopted the course opposite to ours:

"Some coach-makers, especially those from the provinces, have sometimes censured us that our small drawings are not diminished in exact proportions. But if they knew the effect which would be produced by so doing, they would certainly change opinions. It would not be possible to diminish the proportions more exactly than by way of photography, yet there are no coach-makers who send their patrons samples of this kind, because such a copy would look much heavier and less graceful than the original, because of certain optical effects which we will not try to demonstrate here. All coach-makers know that a carriage, when finished, looks much lighter than before it has been painted. This is owing to the fact that the rounded forms, when their surfaces are painted and varnished, present luminous parts and well marked shades, which disappear in the diminished copy. It is an image, made with reference rather to the optical effects than to mathematical proportions, which we wish to represent in our carriage drawings. Boileau has said: None can please the mind when wounding the ear. It may be said with equal truth:



To please the mind it is necessary first to please the eyes. And it is this which we have aimed at in our small drawings. For the manufacturer we have placed below the drawings, tables of dimensions, and scales by which to measure the dimensions. And thus we are prepared to satisfy all wants."

## Editor's Work-bench.

### THE POWER OF ELASTICITY.

AMERICA builds very light carriages. She makes it her boast that they are the lightest in the world, and this is, doubtless, true. The question sometimes arises, "Are they not too light?" We have heard an English coach-maker assert that they were, and say in this connection, "Sir, you Americans can make the lightest vehicles, but the point is, can you ride in them?" To a certain extent, lightness helps durability. This is illustrated by the following occurrence, which we saw in Fourth avenue last week:

A light buggy was driving up the avenue, near the edge stone, and a horse-car was just abreast of it. They were met by a heavy express wagon, driven by a drunken person, who attempted to pass between the buggy and car. The driver of the buggy stood his ground, being on the right side of the street, and prevented from turning out by the presence of the car on one side, and edge stone on the other. The result was a collision, in which the hub of the buggy, being higher than that of the wagon, passed above it, and between the spokes; and at the next revolution of the wagon wheel, every spoke therein was torn completely out, leaving the rim unattached, and this without any injury to the buggy, owing to its lightness and elasticity. This is the more remarkable when we remember the position of the latter, crowded between the wagon and the edge stone, and sustaining so severe a shock.

### CARRIAGE REPAIRING.

Our cotemporary, *The Hub*, has been agitating the subject of prices charged for carriage repairs, and in doing so has developed many important points, which ought to be a help to many jobbing shops, as well as to large factories. It has for many years been a well-known fact that repair prices were very variable in different places, and there was no real standard by which to charge. This being the case, it has been for the interest of a gentleman wishing his carriage re-painted to go to several shops, asking quotations, and directly hinting that they must be in competition with his neighbor. Out of this has grown much hard feeling.

It is not possible that there should be a uniform tariff by which every carriage-maker in that city should make his charges, for the quality of work in each shop will be different, and the prices must be in proportion to the time and material employed. One builder, who is an artist in his line, will spend as much time in putting new steel tires and bolts on light buggy wheels as would allow another less particular builder to do the same job three times, and the materials used by the former would cost him much more. This artist will, perhaps, charge \$28 for his work, and he earns it, while his neighbor charges, perhaps, only

\$12 or \$15 for the same job, and earns no more. *Cost to the maker* is the only true standard by which to make charges, and this includes *time* and *material*. But there are many makers who do not know how to reckon the actual cost to them of certain work, or, if they know how, do not take the time to do it. It is to those that the published tariffs of the different cities, made up from the highest quotations given by the builders of these cities, will be of great value. Every carriage-maker ought to compare them carefully, and figure up his own charges, and carry the comparison still further, and after giving the subject a full hearing, make up a tariff by which to charge in his shop.

We think his list should be longer and fuller than that given in *The Hub*, however. That contains only about fifty items. We, therefore, give below a much longer list, including about one hundred items, and it would be well if every carriage-maker had established prices for all these items. The subject of carriage repairing was agitated in a leading Massachusetts center in 1867, and the result was that a meeting was held by the repairers of that city, and prices were arranged for the items which we mention below.

#### LIST OF PRICES.

##### Iron Repairing.

- For setting bolted tires, under  $1\frac{1}{4}$  inch.  
 " " hack and express tires, over 2 inches.  
 " "  $2\frac{1}{2}$  inch tires.  
 " " 4 "  
 " new tire bolts, 5 and 6 cts. each, as the number may be.  
 " mending springs, 1 new top main leaf,  $1\frac{1}{2}$  inch and under.  
 " mending springs, 1 bottom main leaf, 1 inch and under.  
 " mending springs,  $\frac{1}{2}$  new leaf, 1 inch.  
 " " " 1 " " 2 inches.  
 " " "  $\frac{1}{2}$  " " 2 "  
 " " " short.  
 " " buggy springs.  
 " setting up and tempering springs, 3 or 4 leaf.  
 " new jack clips.  
 " " " eye barrels.  
 " " top circle.  
 " " bottom circle.  
 " " clip king bolt.  
 " " " " straight,  $\frac{3}{4}$  inch.  
 " " " " 1 "  
 " " " " 1  $\frac{1}{4}$  "  
 " all common bolts.  
 " one set new steel tires, 1 inch by 3-16.  
 " " " "  $1\frac{1}{4}$  "  $\frac{1}{4}$ .  
 " " " "  $1\frac{1}{2}$  "  $\frac{1}{4}$ .  
 " " " " iron " 1 "  $\frac{1}{4}$ .  
 " " " " "  $1\frac{1}{4}$  to  $1\frac{1}{2}$  by  $\frac{3}{8}$ , 10 cts. per lb.

##### Wood Repairing.

- For new rimming wheels, walnut rims,  $1\frac{1}{4}$  inch.  
 " " " " " "  $1\frac{3}{8}$  "  
 " " " " " "  $1\frac{1}{2}$  "  
 " " " " " "  $1\frac{3}{4}$  "  
 " " " " " "  $1\frac{3}{4}$  "  
 " ash and oak, one dollar less on each.



For new hubs and setting boxes, buggies and carryalls,  
8 inch.  
 " new hubs and setting boxes, buggies and carryalls,  
10 inch.  
 " new hubs and setting boxes, buggies and carryalls,  
12 inch.  
 " new hubs and setting boxes, buggies and carryalls,  
14 to 15 inches.  
 " new spokes, from 1 to 1½ inch, for 1 spoke.  
 " " " " " " from 3 to 6 in a  
wheel.  
 " all spokes, from 1 to 1½ inch, 3 to 6 in a wheel.  
 " " " " 1¾ " 2 " " "  
 " " " " 2¼ " 2½ " " "  
 " " " " 2¾ " 3 " " "  
 " new rimming wheel, short felloes, 1½ inch tire.  
 " " " " 1½ " "  
 " " " " 1¾ " "  
 " " " " 2 " "  
 " " " " 2¼ " "  
 " " " " 2½ " "  
 " " " " 3 " "  
 " " " " 3½ and 4 inch tire.  
 " single felloes.  
 " 1 bent rim, 1½ to 1¾ inches.  
 " ½ " " " "  
 " 1 " " 1 to 1¼ "  
 " ½ " " " "  
 " straight shafts, from 1¾ to 2¼ inches.  
 " " " " 1¾ to 2 " "  
 " " " " 1¾ to 3 " "  
 " bent carriage shafts, from 1¾ to 2 inches.  
 " " " " 2¼ to 2½ "  
 " " chaise " same wood, per pair.  
 " strait " " " "  
 " chaise springs.  
 " new shaft bar.  
 " " bent whiffletree.  
 " " straight " "  
 " " plain spring bar.  
 " " " axle bed for carriages.  
 " " " " axle let in.  
 " " " " grocery wagon.  
 " " " " common express wagon.  
 " " " " " " 4 by 4½  
inches.  
 " " plain axle bed, common express wagon, 5 by 6  
inches.  
 " " buggy or carryall head block.  
 " " purches, two in a carriage.  
 " " " one " "  
 " " coach and hack poles.  
 " " 2 inch poles.  
 " " 2½ " " "  
 " " bent " "  
 " " hack whiffletrees.  
 " " carriage pole, plated, made to order.  
 " " " " and shifting, made to order.  
 " " express bodies, three rave, 6 & 7 feet long.  
 " " " two " " "  
 " " " one " " "  
 " " " three " 7½ & 9 " "  
 " " " two " " "  
 " " " one " " "  
 " " board seats.

For new frame seats.  
 " " set wheels, first quality.  
 " setting boxes.  
 " " tires and fitting up.  
 " new set bands.

#### Carriage Painting.

For painting running parts, plain, and varnishing hacks,  
open quarters.  
 For painting running parts, plain, and varnishing hacks,  
close quarters.  
 For re-painting, striping, and varnishing hacks.  
 For taking off paint, re-painting, striping, and varnishing  
hacks.  
 For mending, painting, and varnishing phaetons, bug-  
gies, and chaises.  
 For re-painting, striping, and varnishing phaetons, bug-  
gies, and chaises.  
 For cleaning and oiling enameled tops.  
 " " oiling, and enameling tops.  
 " mending, painting, and varnishing one-horse carry-  
alls, curtain quarters.  
 For mending, painting, and varnishing one-horse carry-  
alls, close quarters.  
 For repainting, striping, and varnishing grocery wagons.  
 For painting new light express wagons.  
 " " " coal-box top buggies.  
 " " " " " open "  
 " " " Concord " "  
 " " striping, and varnishing new shafts.  
 " " " " " single spokes.  
 " " " " " one set new "  
 " wheels well finished.

#### OUR STREET PAVEMENTS.

SHALL our streets be paved with wood or stone? This is a subject in which the carriage-maker is directly interested, and it is for his advantage to look into it. The following letter argues the subject from a sanitary point of view, and brings up many interesting points in this connection:

Experience in this country has shown that the material employed in paving streets must be either *stone or wood*.

There are many different methods of laying each of these materials, some of which have been universally condemned. For instance, the "cobble-stone," which is simply an abomination in the sight of horse and man. The "macadam" produces dust, which is not only disagreeable, but deleterious to health. Without comparing structural devices, and in order to get at the merits of the materials, and make just estimate of both, let blocks of stone of suitable size and dimensions be placed upon edge, and blocks of wood shaped in like manner be placed upon end. Now, *all things* considered, which makes the best pavement, the stone or the wood? In other words, which material subserves best the purpose intended by paving?

The objects sought in paving streets are cleanliness, health, comfort, facility of locomotion, the consequent saving of time, labor, and expense of transportation. Pavement of stone does facilitate transportation, but at the expense of horse-shoes, horse-flesh, and of great wear and tear of vehicles. The danger to rider and driver, on stone, is, to say the least, unpleasant, while the rattling



and clattering noise, the side-tripping and sliding of wheels, and slipping of horses, is a positive discomfort. Besides, it has been estimated that the dirt from stone pavement exceeds that from wood, by at least one-third. This dirt contains, with other deleterious substances, pulverized stone, which enters the lungs in minute particles, and will sometimes make a lodgment in the most delicate membranes of the air-cells, and often create irritation and even inflammation. On the other hand, wooden pavements are easily kept clean, they are smooth and elastic, they give certainty of footing, ease of draught, and we ride, drive, and haul over them with little noise, and great care, safety, comfort, and satisfaction. Indeed, they so fully fill all the requirements, that those who favor the stone make but one objection to the wood, and that is want of durability. Persons go out of their way to get upon wooden pavements, and the universal exclamation is, "This is the pavement we want, if it will only stand." If wood can be preserved from decay it will "stand." From experiments lately made in Europe and America, I feel satisfied that the wood can be preserved from decay. Coal tar contains certain ingredients which will preserve wood from decay, if properly applied. Carbolic acid, or the creosote of coal, is one of the finest antiseptics known, whether applied to animal or vegetable substances—and this is one of the ingredients of coal-tar. The mere dipping of wood into coal-tar is not sufficient, more especially if the wood be green, as is generally the case. Because, in the first place, the coal-tar will not penetrate wood filled with sap. In the next place, the crude coal-tar used furnishes a covering similar to a coating of paint, and when fermentation in the sap takes place, and gases are generated, they are confined by this coating of coal-tar, and dry rot ensues. It is a well-known fact that painting green wood makes it rot more rapidly.

If, however, coal-tar be applied in the form of *vapor* (as, for instance, by the "Robbins Process") the heat will expel the moisture from the wood, coagulate the albuminous portion of the sap, and the carbolic acid, in this sublimate form, will permeate the block and completely saturate it, thus preventing decomposition. By the use of wood thus treated, our pavements would be filled not only with an *antiseptic*, but with one of the best *disinfectants known*. If it be thought wise to sprinkle the streets of New York and all the great cities of Europe with water mixed with carbolic acid, because of its disinfectant properties, how much better to have the whole street laid with blocks of wood completely saturated with it! Disinfectants, such as chlorine, permanganate of potash, or candy fluid, oxydize the gaseous products given off by putrefaction, and all organic matters with which they come in contact, while carbolic acid merely destroys the causes of putrefaction without acting upon the organic substances. The former deal with the effects, the latter with the causes. A very small quantity of carbolic acid will prevent decomposition of substances. Being volatile it meets with and destroys, according to Dr. Jules Lemaire, the germs and sporules which float in the atmosphere and vitiate it. The health of a city will be greatly promoted by laying the streets with wooden blocks, saturated with carbolic acid. In the subject of pavements, you, and I, and the whole community, have a deep interest. This fact will furnish apology for so long a communication.

LEWIS A. SAYRE, M.D.

## TRADE NEWS.

MINER, STEVENS & Co. have made some further improvements on that light and popular style of carriage called "Britzka," a fine specimen of which, just finished in their factory in East Thirteenth street, can be seen at their carriage depository, Broadway and Bleecker-street. We were shown to-day the "Carriage of the Period." This is a basket pony phaeton, of a new style, made popular under the above title by A. S. Flandrau, carriage-builder, of Eighteenth street, who introduced this vehicle at the beginning of the present season. Jay Gould, Esq., drives one at Newport. Mrs. Hoey has one at Long Branch, and as Mr. Flandrau has sold already over one hundred of them, they, doubtless, can be seen at all our summer resorts. We are informed that the firm of James B. Cone & Co., Broadway, near the Metropolitan Hotel, will close August 1, and the remaining stock is to be transferred into the new carriage depository of J. B. Brewster & Co., in East Twenty-fifth street.

McLEAR & KENDALL have a large and finely arranged carriage factory in Wilmington, Delaware, employing a force of one hundred and fifty hands. Indeed, it is one of the finest shops we ever visited, being 218 feet deep, by 90 feet front, comparatively new, and full of work. Their working capacity is reinforced by a Corliss' engine of twenty horse power, supplied by a new patent Root tubular boiler, and before long they intend putting in a new engine of forty horse power. They build a variety of work, but mostly top buggies. During the year 1869, they turned out about 1,150 vehicles, most of which were sent South and West. This enterprising firm started in the business of carriage-building in 1864, which might seem like rather an unfortunate time, but they have worked success out of it. They have a repository in Philadelphia which accommodates sixty carriages, and another in Charleston, S. C., in which they keep a stock of nearly twice that number. They have occupied their present factory about four years, and it certainly ranks high among the fourteen carriage shops of Wilmington.

## CHIPS AND SHAVINGS.

TURN OUT!—The snow was so deep in Cheshire county, New Hampshire, last winter, that it was difficult for persons meeting with teams to pass. An eccentric citizen, well known in that county, and having a defect in his speech, was coming to the village with a horse and sleigh, and being about to meet a stranger with a team, exclaimed, "Turn out! turn out! my father's dead!" Upon which the stranger, with much difficulty, turned out, and gave him the entire road. After he had got fairly by, the stranger turned and inquired of him when his father died; to which the grief-harrowed citizen responded, "About fifteen years ago!"

BATH SLEIGHS are acquiring a reputation equal to that of Portland carriages. S. R. Bailey, of the former city, is giving special attention to the manufacture of these winter vehicles. Of his patent bent-standard and truss-floored sleighs he has made over 200 during the past year, and will increase his facilities so as to turn out 1,000 in 1870. Mr. Bailey has had an experience of 15 years in his business, has a factory, supplied with the best machinery, and makes none but first class work. All his sleighs are made under four patents obtained by himself.





**FLIES ON HORSES.**—The following is given as a preventive of horses being teased by flies: Take two or three small handfuls of walnut leaves, upon which pour two or three quarts of cold water; let it infuse one night, and pour the whole next morning into a kettle and let it boil for a quarter of an hour. When cold it will be fit for use. No more is required than to moisten a sponge, and before the horse goes out of the stable, let those parts which are most irritable be smeared over with the liquor, viz: between and upon the ears, the neck, the flanks, etc. Not only the gentleman or lady who rides out for pleasure will derive pleasure from the walnut leaves thus prepared, but the coachman, the wagoner, and all others who use horses during the hot months.

**POLITICS.**—We notice by the Boston *Herald* of August 11th, that C. P. Kimball has declined to run for Governor of Maine on the Democratic ticket.

**COÖPERATION.**—Brewster & Co., of New York, some time since announced to their men that for the future they would allow them, in addition to their wages, a half-yearly dividend of one-tenth of the net profits of the firm, to be divided according to the greater or less amount of work performed by each. Recently they declared the first semi-annual dividend, giving three and a half per cent. on the earnings of each man. Some of them received from \$32 to \$52, others from \$5 to \$10. Another manufacturing firm, who tried the same experiment, declared a dividend of 438-100 per cent. on which some of the hands got over \$100.

**BLACKING FOR HARNESS.**—Melt four ounces of mutton suet with twelve ounces of beeswax; add twelve ounces of sugar-candy, four ounces of soft soap, dissolved in water, and two ounces of indigo, finely powdered. When melted and well mixed, add half a pint of turpentine. Lay it on the harness with a sponge, and polish it off with a brush.

**CUSHION FOR WHEELS.**—Mr. John Raddin, of Lynn, has invented an elastic cushion for heavy carriage wheels, which seems to be of value, as the saving in the wear of wheels, rails and machinery effected by the use of this

cushion is considerable. It is applicable to the wheels of common carriages. Considering the rapid destruction of pavements in large cities by the passage of heavy carriages, any invention which tends to diminish this wear is worthy the attention of our lawmakers; and if this elastic cushion can do what is claimed for it, its adoption in cities is likely to become general.

**VARNISH MAKING.**—This business is a large one in the United States, and it is constantly increasing. Among the most successful manufacturers of coach-varnishes are Valentine & Co., formerly of Boston, who have recently opened an office at 88 Chambers Street in this city. The inside wood-work of their new office is finished with the Permanent Wood Filling, which has made its way so rapidly into most of the leading carriage shops. A general invitation has been extended by them to the carriage-makers and painters to call upon them when in the city, and examine the appearance and working of the P. W. F. on inside work as shown by this test. This firm is now manufacturing and selling their varnishes in direct competition with the English, and it must be conceded by those who look into the subject, that they are carrying on the war of competition very energetically, and with a degree of success which is hard to realize.

**GOLDEN RULES.**—There are carriage builders who guide themselves by the following golden rules, which ought to insure success:

1. To build only the best quality.
2. To have prices uniform to all.
3. To adhere faithfully to their guarantees.
4. To sell only their own make.

**YANKEE CALCULATION OF RAILROAD SPEED.**—"Well it is curus how we du git over the ground. Why, the trees all look as if they was a-dancin' a jig to double quick time. I kin reckerlect ten or twelve years ago that if I started from Bosting on a Wednesday, I cud git in Philidelphy on the next Saturday, makin' jest three days. Now, I kin git from Bosting to Philidelphy in one day, and I've ben cal'latin' that if the power of steam increases for the next ten years as it has ben a-doin' for the last ten years, I'd be in Philidelphy jist two days before I started from Bosting."

**THE WAR.**—Some coach-builders will be prominently reminded of the Franco-German war by the rise in price of French plate glass. We hear that in some cases a premium of twenty-five to forty per cent. is demanded.

**ANOTHER EFFECT.**—Several dealers in carriage materials are holding back orders received from Prussia. One New York house has stored away a dozen or more large cases which were in readiness for shipment when the war broke out. Prussia depends upon America for all the hickory she uses.

**CARRIAGE MAKING HEREDITARY.**—Benson Bros. of New York have a painter whose father, grandfather and great-grandfather were connected with carriage making.

**WELL HOUSED.**—A Chicago paper states that the finest residence in that city is owned by a carriage-maker.