

Intricate Carving Done By the Pattern-Makers.

How Patterns for the Construction of Cars and Engines Are Made—Dainty Machines of Local Designers—The Pattern-Maker's Rule—Uses of Paint—Number of Patterns Made—Two Three-Story Buildings on I Street Filled With Them—Accuracy Indispensable—The Men Who Do the Work.

"Necessity is the mother of invention. Necessity has been the mother of invention for a long time—so long, in fact, that the memory of man runneth not to the contrary. After the creation of the world, a master was needed, and as material was scarce, he was made out of dust. An iron man no doubt would have lasted longer if he had been properly painted, but up to date the dust article has answered the purpose fairly well.

Nor was that all. Even the children know how woman was invented, for she also was deemed necessary—and has subsequently proven such to be the case.

And since that date inventions have been born of necessity almost every day. Noah invented the Ark during the high water some time ago, and Phillip thought out and perfected the Macedonian legion, and it was a marvel.

The age of invention, therefore, is not new, as we have been taught to believe, but it is progressive, and old Mother Necessity draws a line to which men work; but the finest lines drawn and worked to in California to-day are those carved out by the workers in the pattern shop division of the car machine shop of the Southern Pacific Company, of which Ira C. Shaw is foreman.

Archimedes was a philosopher of no small repute, and was the first mathematician of his time, but had one of the elaborate and complicated drawings been laid before him which are daily turned into the pattern shop, he would have scratched his head and concluded that his early training in mathematics had been very limited indeed, and that his philosophy was antiquated. In that same pattern shop invention keeps step with necessity, and necessity makes new demands every day.

When you visit this shop you will first glance at its independent motor power, which is capable of setting each machine in the room in motion, and then you will pause while the foreman explains to you that the patterns for every casting ever made in the shops were made here, after which it will begin to dawn upon your mind that you are in the most important of any of the divisions of the Southern Pacific shops.

Here are made patterns for castings for cars, locomotives, steamboats, and for all the tools used in every department. Here are made patterns of all kinds, from the monster shear press to the most delicate brass tracery, and each and every pattern must be accurate to a hair.

Then you will stop before an automatic arrangement for grinding the tools used in the shop. The tool you desire to grind is placed in a clamp and set at the desired angle so as to secure the bevel needed; the power is turned on, the wheel begins to revolve and there you are. If that arrangement had been perfected 150 years ago, Benjamin Franklin would never have written up his experience on "turning the grindstone," nor pointed a moral from the tale.

There are five turning lathes of different sizes used for turning wood, and they differ from other wood lathes only in that the timber to be turned is kept in place by adjusting nuts, devised by the foreman for the purpose.

Standing upon the end of a table is an insignificant contrivance, consisting of two small rollers which come together like an old-fashioned clothes-wringer, except that the top one contains different sized tongues or rolls, which fit into corresponding grooves in the one below. This is called a head fillet machine, and was also designed by Foreman Shaw. A strip of sheet lead is merely stuck into one of the rolls, the crank turned, and your fillet is ready to be tacked upon a pattern having irregular corners, which must be rounded off, and thus a long, tedious and particular piece of hand carving is dispensed with. It is one of the latter-day inventions which necessity has demanded and secured. It is noteworthy fact that some years ago a Yankee, with an eye set to business (Yankees' eyes usually are set that way), visited the shops, became interested in the little machine, went back home, made a model, got a patent for it, and then tried to sell one to the Southern Pacific Company and got laughed at for his pains.

Then you will be shown a dowel machine, the product of which plays a prominent part where patterns are composed of two or more pieces. A dowel, literally, is a pin or block of wood fitting into holes in the abutting portions of two pieces, being partly in each piece to keep them in their proper relative position; and the dowel machine is constructed only for the purpose of turning pins from one-sixteenth of an inch to one inch in diameter, and it does its work as accurately as the pattern is permanently fixed in one piece, and when the two pieces are joined the model is as firm as if it consisted of a single piece. The machine was designed in the shops, and is a labor-saver of considerable importance. Formerly when the cogs or teeth were set into a wheel pattern, a dovetail mortise was made in the wheel into which a corresponding tenon on the tooth was forced. The dowel does away with all that work, the tooth being fitted upon the flat surface of the wheel and held in place by two dowel pins and a small screw.

Then you see a big lathe used for turning inside and outside tapers. It is capable of turning out tapering pieces of timber with as much exactness as an engine lathe, and will readily work up a timber seventy-two inches in diameter on the outside and thirty-four inches on the inside. The taper may be set at any desired angle, and it is the most valuable tool of its kind ever used in a pattern shop.

Then you will see a neat little machine called a combination planer and joiner. It is an extraordinary useful tool. Its knives are set on a shear, or draw, and will easily smooth timbers from one-sixteenth of an inch to five inches in thickness. It cuts at any angle desired, and is a vast saving of labor over the old hand process.

Here, too, is a power jointer, which is used for taking the wind and warp out of lumber of any size or dimensions, and smoothing it to a nicety. An improvement over the old jack plane? Oh, yes! It will do the work of 100 men with jack planes, and do it better than they. The

Guesswork, in many a man's business is all right if it happens to hit, but there is no guesswork among the pattern-makers of Sacramento. Every order they receive is laid out by skilled draughtsmen, and the marks and lines and letters and figures and diagrams on those sheets of blue paper would be good and sufficient cause to drive the uninitiated to the flowing bowl, and subsequently to an insane asylum.

The pattern-maker is steady, accurate, sober and industrious, and while comparatively few men are employed at the present time, theirs is an indispensable occupation, and while one particle of iron is cast in the city, so long will they patiently cut and carve, laying out the work to be done by the departments. The men employed at this time are:

- Ira C. Shaw, Foreman. D. W. Hoffman, Assistant Foreman. J. Connors, J. Landis, M. Chipperowsky, E. M. Lohrey, W. J. Foote, C. Mangano, A. L. Grimes, D. Nield, J. J. Gormley, L. R. Nichols, C. H. W. Prentice, R. C. Hopkins, T. Smith, E. Kruttschnitt, M. J. Scanlan, M. Kapp, George Walker.

BOARD OF EDUCATION. Certificates Granted and Other Business Transacted.

The County Board of Education held a special session yesterday, all the members being present.

Misses Nellie M. Ogden and Mary L. Small were granted recommendations for life diplomas. Miss Nettie B. Heath was granted a grammar grade certificate on her Amador County grammar grade certificate.

Mrs. Lucetta E. Swain was granted a grammar grade certificate on her educational diploma. "Silver and Gold" was placed on the library list.

Criminal Trial Calendar.

Judge Hinkson yesterday set his trial calendar as follows: People vs. George Sprout, burglary, May 11th.

People vs. F. G. Englehardt, murder, May 12th. People vs. Fanny Buchanan, grand larceny, May 15th.

People vs. Jack Finnegan, grand larceny, May 16th. People vs. Collins, Burns et al, robbery, May 25th.

People vs. Callendine, Baker and Townsend, robbery, May 18th.

Land Patents Signed.

Governor Budd yesterday signed the following patents for school lands: John H. Rice, San Bernardino County, 100 acres; Walter E. Dennison, Mariposa County, 80 acres; Great Western C. M. Palmer, Lake County, 40 acres; T. Bengard, San Benito County, 25 acres; Toren Coburn, San Mateo County, 40 acres; Herman Uphoff, Nevada County, 6 acres.

Suits for Divorce.

F. A. Boulin, by his attorney, J. H. Liggett, filed a complaint in the Superior Court yesterday asking for a divorce from Mabel Boulin. Extreme cruelty and habitual intemperance are the grounds alleged.

Celia J. Cole, by her attorney, E. C. Hart, has also commenced divorce proceedings against William H. Cole. The grounds alleged are failure to provide and habitual intemperance.

University Orders Drawn.

The Governor yesterday signed orders for the payment of moneys as follows: On the State Treasurer for \$1,000, being the amount of Plumas County Bond No. 19, to be paid to the Treasurer of the State University. Also, on the State Treasurer for \$50,000, to be paid to the Treasurer of the University of California, which is the amount due on Marin County subsidy bond No. 100.

Harmens' Sentence Postponed.

The sentence of John P. Harmens for taking the money of the Wells-Fargo Express Company that was buried by bandit Brady after the robbery of the train in Yolo County in October, 1894, was continued by Judge Hinkson yesterday until next Saturday.

He May Recover.

Charles L. Black, the brakeman whose leg was so badly crushed at Biggs, Butte County, a few days ago, was slightly improved yesterday and his family have some hope that he may recover. He is, however, quite low at best.

A Business Change.

Capital is looking toward Sacramento as one of the most prosperous cities in California. Mr. L. Schulz of Stockton, a butcher of long experience, purchased May 1st a one-half interest from M. F. Odell in the wholesale and retail butcher and pork packing business at 1020 and 1022 K street. In the future the firm will be Schulz & Odell.

Charged Handed.

The Nonpareil Meat Market at 718 K street has been purchased by Hauser & Kast and will be run by them in connection with their market already established at 610 J street. None but the best meats will be kept and at reasonable prices.

Not necessary.

It is not necessary to tell you the materials are right. New Brew proves it. In strength, in flavor, in aroma, monarch of all beers. Buffalo Brewing Company.

When farmers, carpenters and builders learn the prices made on all kinds of hardware at the "C. C. C." Grangers' building, corner Tenth and K, that line will become as popular as the grocery and drug departments.

We sell the famous Albert Roche sardines, key-openers, 2 cans for 25c; a good imported sardine, 1/4, 10c; 1/2, 15c; American sardines, 6 cans for 25c; 45c a doz.; mustard sardines, 5c a can. A. C. S., Eighth and K.

Buy a Cleveland or Sterling. Both have reputations of years' standing. Gillis & Winans, Golden Eagle Cycles, Seventh and K streets.

Call and see Wilson's new Tally-Ho four-in-hand coach; finest in the city for picnic and pleasure rides.

Dr. T. Wah Hing treats liver and kidney weakness successfully. Office 1007 Third street.

White tar camphor keeps moths out of clothing. Cheap and agreeable. J. A. Green's Seventh and K streets.

Welch Brothers are now ready to fill orders for ice cream as fast as they come at their new store, 830 J.

Babies' and children's photos a specialty. Cutbush, new studio, 13th & K.

Baldwin's photos the best, 504 J.

Alex. Holmes, Photo Studio, 1308 10th.

IN THE SUNNY SOUTH.

Rev. R. M. Stevenson in a South Carolina Town.

The Consequences of the Civil War and the Changes in the New South.

(Special Correspondence of Record-Union.) CHERAW (S. C.), April 27.—Quaint old place, this, with its broad streets, 100 feet wide, each containing three rows of trees, one on either side and one in the middle. Many of these oaks are of great size, with wide spreading branches, and must cast a grateful shade during the hot summer days.

The houses are in many instances large and suggest commodiousness and they have great fireplaces in well-nigh every room, but too often they are unpaired and in an otherwise unimpaired condition. This does not so much arise from a lack of taste as a lack of means. The war swept away vast wealth from this region, and just as the people had wealth they were the more unprepared to adjust themselves to the changed condition of things. They were used to having work done for them and it was hard for them to do work themselves.

There were reasons why this particular place should be an object of peculiar interest. Here lived the man who drew up the ordinance of secession, and here were centered some of the most ardent advocates of the now lost cause. Here the bridge over the Great Peelee was burned by the retreating Confederates, when the river was too much swollen for the ardent Sherman to follow. Probably less destruction would have taken place here had that bridge not been burned and he compelled to remain here for nearly a week.

But after many weary years of poverty and struggle a new and more prosperous time is dawning in this South. Northern capital finds investment in cotton mills, and that so rapidly that New England begins to acknowledge the inevitable, viz., that the South is destined not only to raise cotton, but to convert it into cloth. As the mills are springing up the more plentifully the demand for labor is increasing. The steer is a great institution in this country. You see him drawing the plow while the darky holds the handles. You see him between the shafts of the cart, being the poor man's "driving horse." Or you may see him hitched to the harrow and his "boss" astride his back. I have seen him driven singly almost universally.

After the steer, comes the mule, for common use, and I see a few good horses. I never saw a contrast so striking, between two classes of white people, as that which I have seen here. The one class I saw on the street of a Saturday afternoon, the other in the church on Sabbath. Those on the street were from the country. Their language, their dress, their movements, their whole appearance was grotesque and ludicrous, indicating few advantages of school or society. But the people in church gave decided evidence in manner, in conversation, in dress and in their whole bearing of education and culture, and could be found in any assemblage of people. Indeed, I must say that for urbanity, courtesy and grace of manner they are far away and ahead of the Northern people as a class.

The dispensary is South Carolina's attempt at solving the saloon question. I visited it and looked upon the blank application which the purchaser must fill out. He must sign his true name, with date of purchase, amount desired, residence, etc., etc. Many men who otherwise would take a drink are not anxious enough to do all this to get it, and he cannot drink it on the premises after he does it, and he cannot get it after 6 o'clock in the evening. There are no evening carousals and the traffic is so hedged about that there is much less consumption of liquor, and a state or things much preferable to the open saloon.

All through this part of the world the colored man is a prominent factor and it is confessed that he is doing well. He is ambitious to get an education, to acquire property, in short, to make himself the equal of the white man. He is getting his little home and tract of land and he pays for them in small periodic sums. He is the happiest and most fully contented of human beings. He never has the dumps, nor gets discouraged, but sings with a joy and a sweetness that is an inspiration.

I am being entertained by the Mayor of this little city of the "Sunny South." He is a lawyer of fine practice and my first cousin. Some of these mornings have had about as much snap in them as the sharp edge of our winter mornings, but the ample fireplace may glow with wood at \$1.50 a cord.

R. M. STEVENSON.

A SHASTA STEER.

Attempt to Smirch a Popular and Honorable Man.

Nobody who knows Charles L. Paige, the bright and popular newspaper writer, poet and humorist, can be made to believe that he would knowingly kill a steer belonging to another person. Yet that is what he is charged with having done up in the wilds of Shasta County.

Paige has a cattle ranch on Bowlder Creek, some eight or ten miles from the town of Shasta. A few months ago he, as Deputy State Game Warden, had someone arrested for violating the game law, and soon afterward he was himself charged with grand larceny. In a letter to a friend here, he said the charge was made through a desire for revenge.

It was claimed that a young beef he had killed was the property of another person. The case has been on trial the past week at Redding, but the result has not been announced. Local prejudices frequently enter into such cases, and it may be that Paige has enemies who may succeed in causing him some annoyance, but however the case terminates no one here who knows Paige will believe that he is capable of wrongdoing of any kind.

THE UPPER VALLEY.

Crops Better Than for Years, and Canneries Being Erected.

Assistant Superintendent Jones of the Sacramento Division has just returned from a trip of inspection to Red Bluff. He reports great prospects better than they have ever been in the Sacramento Valley, and with the indications of better prices, the farmers feel more hopeful than for some years past.

Appriots and almonds have been badly damaged by frost, but there will be more than half a crop of peaches. A large cannery has been commenced at Biggs' Station and one at Gridley. One

is also going up at Marysville and the one at Red Bluff is being enlarged. The old flourmill at Kirkwood is being converted into a creamery, and it is evident that the residents of the upper valley have faith in their future.

"No Higher Compliment."

(From the Auburn Argus.) The "Sunday Record-Union" falls into its place with developed character, as the metropolitan journal of the State outside of San Francisco. She knew the place was waiting for it, and needed but its occupancy. The selections are always made with ripe judgment. The editorials are conservative and to the line, the literary make-up conforms, of course, to the well-known and exceptional character of the journal, and no higher compliment could be given.

Every number of the edition demonstrates the wisdom of its continued existence. The beauty of it is that the reader does not have to skim through oceans of head-letter to find the news, but strikes the kernel without labyrinthizing or slumming.

A CHURCH BUILDING.

One of the Pressing Wants of Our Neighbor, Oak Park.

The good people of Oak Park are striving to build a church, and they want the residents of Sacramento to give what they term the "Queen" suburb a lift. The following appeal for help is made by the officers of the Methodist congregation there.

The "Queen" asks Sacramento to give her a little assistance. She says: "We help to support every industry in the greatest electrical light plant city in the world—Sacramento. Is not that a fact? Will you not help us a little in return; some have, will not others do a little? Here is what the "Queen" says: "We have, within a radius of a mile, a population of 1,540, and we have 204 children on our Sunday-school roll who meet in Daly's Hall each Sunday to learn about God. We want a place where we can handle them to better advantage.

"We have undertaken to secure a church home. We have let the contract for \$2,138. Nearly all the men here work in the railroad shops, or on the street cars, and they have bought houses out here in this Queen suburb of your fair city, and are paying for them. As a consequence there are at present too poor to pay much in the way of building a church, but they are doing all they can.

"Any sum you may hand into the publishers of the "Record-Union" will be thankfully received by us and acknowledged through its columns. Already we are indebted to the publishers of that paper for the financial help they have given us. If you prefer to send your donation to the pastor, F. A. Morrow (residence 3312 Y street, Oak Park) you are at liberty to do so, and he will acknowledge the same through the press or by return of receipt, as you please.

"Any donation will be thankfully received by the Board of Trustees of the M. E. Church.

"D. W. HOFFMAN, President. "M. C. Hewitt, Secretary."

Racers Going East.

Three carloads of racehorses that have been racing in San Francisco went East last night. One of them contains the cracks of the Burns & Waterhouse stable.

Eastern Tourists.

An excursion train of nine cars, bearing the Eastern visitors homeward from the festa at Los Angeles, will pass through here about 1 p. m. to-day.

Petition for Letters.

Public Administrator W. B. Miller has petitioned the Superior Court for letters of administration on the estate of William Mayer, which consists of a kit of tools, valued at \$50.

The River Still Falling.

The river is slowly falling, and last evening marked 21 feet 9 inches, a fall of 1 inch in twenty-four hours.

Notary Appointed.

Governor Budd yesterday appointed Thomas P. McCaran of San Jose to be a Notary Public.

California Versus Foreign.

A carload of California olives just arrived, and for sale in tierces, barrels, kegs and measurement. Will be sold at less than cost of production. Palatable, invigorating and healthful. The Pacific, J. near Eighth.

Ten Cents a Dish, With Cakes.

During the summer season Barton will serve his famous ice-cream and water ices, any flavor, at 10 cents a dish, with cream.

Weather permitting, an open-air concert will be given at Cent Park this afternoon from 2:30 to 4:30.

Have you seen those elegant new upright \$300 pianos at A. J. Pommer's music store, corner Ninth and J?

SPECIAL NOTICES.

Vehicles—Baker & Hamilton—Hardware, Carts, Buggies, Carriages, Phaetons, Etc. Farm and Household Wagons. Wholesale Hardware. Send for catalogue.

HODSON, of 313 K street, makes all the children's pictures.

IF YOU WISH any of the following delicacies, you can find them in the finest qualities at the following Market, 308-10-12 K street: Salami Sausage, Choice Mackerel, Smoked Ham, Smoked Sausage, Corned Beef, Swiss, Lamb, Brisk, Cream, Roquefort, Almond, German Ham, Salt and Peppercorn Cheese, Curtis & Herzog.

T. B. REID, dentist, Masonic Temple, Sixth and K streets. Office hours 9 to 5.

NEW TO-DAY.

THE DELEGATES APPOINTED BY the Republican County Central Committee are requested to meet at the McKinley Headquarters (Brusi's office), corner Seventh and J streets, MONDAY EVENING, May 4, 1896, at 7:30 o'clock. By order, GEORGE H. CLARK, Chairman County Central Committee, my3-2t

DATE TAKEN.

A COMPLIMENTARY BENEFIT WILL be given Miss May Powers, late of the Clunie Opera-house Company, on TUESDAY EVENING, May 12th, at the Metropolitan Theater. It

NOTICE.

THE SACRAMENTO ELECTRIC Power and Light Company invites the attention of all property owners and tenants for street railway car tracks. Any responsible person will be given the free use of a car track on the condition that the inventor to furnish his own material and labor for constructing such material, with condition that if the tender proves effectual and is adopted by the company that it will pay for the necessary labor and material used in its construction.

Each inventor or owner will be required to enter into contract in advance, covering terms and conditions under which the work will be done and the patent can be purchased if desired. For particulars apply to: Acting Manager, Power House, Sixth and H streets, Sacramento, Cal. my3-3t

Advertisement for John Breuner's Solid Oak Wardrobe. Price \$13.50. Dimensions: Height, 6 feet 10 inches; width, 3 feet 3 inches; depth, 16 inches. Double doors and drawer below. Similar style in soft wood, \$7.50. John Breuner, 604-606-608 K ST., SACRAMENTO.

Advertisement for Leather Pockets. 50 People Employed all the year round in our SHIRT FACTORY AND LAUNDRY. Our work is THE BEST AND OUR PRICES ARE RIGHT. We all live in town and, everything considered, why shouldn't we have the preference? JOHN T. STOLL, 610 K Street.

Advertisement for BARTLETT SPRINGS. NEW TO-DAY. Have the merited reputation of being one of the wonders of the world, and seekers of pleasure and lovers of sight-seeing, as well as those in search of health, will be well paid by visiting them. No mosquitoes. Large Swimming tank. Many improvements since last season. A Positive Cure for Malaria, Rheumatism, Liver, Kidney and Stomach Troubles. Train leaves Sacramento at 10:30 a. m. Arrive Springs 7 p. m. NEW SERVICE. QUICK TIME.

Advertisement for ECLIPSE BICYCLES. YOU CAN'T WEAR THEM OUT. Schaw, Ingram, Batcher & Co., 211 to 219 J STREET, AGENTS.

Advertisement for THE DAILY RECORD-UNION! Issued Every Day in the Year, INCLUDING SUNDAYS. NO INCREASE IN PRICE. ONLY 65 CENTS Per month, delivered at residence by carriers.

Advertisement for The Sunday Issue, A magnificent 12-page (84 columns) paper. Only 25 Cents per Month, Delivered by Carrier. Has a large independent circulation. Advertise in it. EVERYBODY READS IT. All regular ads. appear in the Sunday issue.

Advertisement for AMUSEMENTS. METROPOLITAN THEATER. J. H. Todd, Lessee and Manager. One Night—Tuesday, May 5th. ROLAND REED. And his Company, under the direction of E. B. JACK, presenting the Roaring, Seasonable Satire, The Politician! Or, THE WOMAN'S PLANK.

Advertisement for AUCTIONS. AUCTION SALE OF VALUABLE CITY BUSINESS AND RESIDENCE PROPERTY. Positive sale. No Limit. Will be sold at public auction on TUESDAY, May 5th, at 10 a. m., on the premises, and conditions under which the property is sold, at the residence of the owner, 13th and H streets, Lot 80 by 110, with two houses, store, stable, barn, etc. Will be sold as a whole or subdivided. Don't forget to attend this sale, the property must be sold, apply to: D. J. SIMMONS & Co., Auctioneers.

Advertisement for BELL & CO. Real Estate and General Auctioneers, 430 J Street, Sacramento. REGULAR SALES DATES, WEDNESDAY 11 and Saturday at 10 o'clock. Particulars and conditions under which the property will be sold, at the residence of the owner, 13th and H streets, Lot 80 by 110, with two houses, store, stable, barn, etc. Will be sold as a whole or subdivided. Don't forget to attend this sale, the property must be sold, apply to: D. J. SIMMONS & Co., Auctioneers.