THE MODERN SAFE.

AN UP TO DATE FIREPROOF AND BURGLAR PROOF DEPOSITORY.

Skillful Workmanship Displayed In Its Manufacture—Locks With Simple Mechanism That Are Extremely Hard to Open If You Don't Know How.

The latest burglar proof safes and vaults are magnificent specimens of skillful workmanship. Although the doors often weigh tons, they swing as easily on their hinges as a window shutter. After the first great door is thrown back and displays its glittering array of bright locks, its glass incased clock and its smooth steel hole, there is another door almost as strong, with bolts and locks of its own. When this is open it reveals three other doors. The upper two are of thin steel and have no locks. Only papers and books are to be kept in the little pockets or pigeonholes which they inclose.

Enter them and shutting in the cash drawer there is the third door with its own lock and bolts. In this safe the size of the cash repository bears about the same relation to the size of the whole safe as a pumpkin seed does to the pumpkin. And it is not only burglar proof but fireproof—warranted, in fact, to stand for at least 12 hours the greatest amount of heat that any burning building could give it.

The making of a safe of this kind is a complicated and expensive operation. All the steel and irons in the form of plates from the works. After having the necessary screw holes bored in them they are heated to a high temperature and then tempered by suddenly immersing them in water. When they come out they are often a little twisted and warped, and have to be rolled cold and sometimes polished clean by a swiftly moving emery wheel. The noise of this operation is ear splitting and so exacting that a man with ordinary nerves can hardly endure it. When the plate is perfectly level it is transferred to another machine, where it is charged light, and an emery wheel shaves off the edges.

The plates are now put together, first one of hard steel, then one of wrought iron or soft steel, and so on until the necessary thickness is obtained. From the iron the safe receives its tenacious qualities—it cannot be cracked or broken as easily as steel, and the steel imparts a hardness that defies the burglar's drill. The screws are also made of combined steel and iron. Each of them is only long enough to reach through two plates, and the screws which join the third, fourth and fifth plates to the first are never directly under any other screws, so that there is no chance for a burglar to bore down through a row of screws. The plates are also drawn very close together, for if any space was left between them a safe blower might succeed in getting his dynamite into it.

Between the interior and exterior walls of the safe a large amount of hydraulic cement, combined with other ingredients, usually according to a secret recipe, is packed solidly. In case of fire the theory is that the water in the cement—about 45 per cent—will, owing to the heat of the outside covering, become steam, partially, at least, and be driven close to the inner wall. Here it will remain and furnish a blanket impervious to heat. All the bolts are cylindrical and from an inch up to two inches in diameter.

Combination locks are now used exclusively. The mechanism of most of them is extremely simple. In one lock there are a number of round brass disks or "tumblers," each having a hole at the center on a small shaft which runs through the safe door and connects with the lock knob. Each tumbler has a slit in it just the size of the steel arm which controls the bolts and reaching nearly back to the center. When all these slits are together and pointing in exactly the same direction the arm slips into them and the bolts can be thrown. But if the slit in a single one of the tumblers is even a thousandth of an inch out of line the arm will not slip back. The disks are set a short distance apart and small screws with big heads are fastened at random over them. As these strike together in turning the tumblers which, and a man might turn the lock knob a thousand years without once getting the slits in all the tumblers together. But the man who knows just how far to turn one way and then how far back again according to the combination numbers has no trouble at all.

The combination and numbers are easily changed by changing the screws in the disk. Many of the best safes and vaults are now being provided with time locks. Two and sometimes three clocks are inclosed in glass cases just inside of the safe door. When the door is locked, no one can open it again until the clock hands have traveled the set distance around the dial and touched a little trigger which releases the bolts. More than one clock is used, so that if one runs down the others will press and perform their duty. In the big banks the vaults are locked about 8 o'clock in the evening and set to open a little before 8 o'clock in the morning. It is a general impression that an expert burglar can open a combination lock by listening to the clicking sound, but dealers say it is not possible for any one to do it. If a safe owner forgets his combination, the safe has to be bored into. There is no other way of opening it.—Chicago Record.

Trotting Races Under the Saddle.

If the government should send 10,000 horses for the cavalry service, would a competent agent select trotters? Have those horses passed to be sought out every? Would the makeup of the average trotter warrant a purchaser in selecting them for hard service under the saddle? It will be said by partial friends of the trotter that he will be equal to the occasion, but sometimes will not do. We know we are thus something in that way. We mean we thus some long distances in trotting race under the saddle. Let us see if the model of the present day has sufficient strength for the cavalry service. Trotting races under the saddle would be more popular with the public than those in the sulky. There is a charm to horseback riding that we cannot account for, a feeling that brings more enjoyment than the pleasure of wagoning or sulkying. A horse has some sensation when he is mounted than when he is harnessed. Bits and saddles make the more attractive. Besides more horses can be managed under the saddle than can be drive with the sulky on the average track.

Two mile and a half dash races under the saddle with added pace or trot would simply empty the cities of their population. They would be popular. Why not handicap the trotters as is done in other countries? This seems to be the only way by which an ordinary horse can win his oats. There are handicaps in running races, handicaps in foot races, handicaps in bicycle races, handicaps in trap shooting, handicaps in billiards and in almost every other sport that I know of, but no handicaps in the sport of American trotting, where there is such vast difference in the capacity of the horses, and where handicaps are needed most of all. The sport is fast sinking in the decline. The observations are not making money, and those who campaign the trotter have a long, hard and rocky road to travel. Under these difficulties it seems to me that some experiment should be made. As the old system will not do there is necessity for a change, and it is astonishing to see that there is such persistency among the trotting horse men to cling to methods which have no merit in them at all, and the only practices that were of value to the trotter, long distance racing and racing under the saddle, have long since been abandoned. I may be mistaken, but my idea was and is now that the trotter was intended for an all round, serviceable horse, and that the heading aim was to make him a perfect roadster, with sufficient speed to keep within the bounds of gentility, and beyond the substance, endurance and beauty were to be looked after. All of these qualities, except get these, have been overlooked. Speed alone has been the object aimed at, and to that end the light draft bicycle sulky has been brought into use, kite shaped tracks, level tracks with the turns thrown up. Science has been employed to make the trotter's path an easy one.

In my opinion the only way to make the trotter an all round horse—one of stamina, one of beauty, one of strength and one of speed—is to put him under heavy weights over long distances. Weight is the only thing that will thoroughly test the legs. Experiments through centuries teach us that under the saddle is the only way by which the development of the horse for the saddle and the road can be made, and the same experience also teaches us that the best programmes for racing are those now in use throughout the racing world, and the same can be adopted by trotting associations.—Horseman.

Scale Insects on Citrus Fruits.

Kerosene and soap emulsion and an emulsion of carbon bisulphide and soapsuds were tried, as also a heavy petroleum oil in different combinations with soap and water. Several styles of spraying apparatus and nozzles were tried and the Vermorel nozzle preferred. The heavy petroleum oil is considered to give the best results, applied in the following mixture: Petroleum oil, 2 pounds; soap, 2.4 pounds; water, 98 quarts.—Experiment Station Record.

Why Do Chicks Die in the Shell?

Hens too fat. Eggs too old. Inbred stock. Unfertile stock. Eggs get chilled. Too much moisture. Impure air in room. Improper ventilation. Too low temperature. Too high temperature. Small air cells in eggs. Diseased breeding stock. Impure air in incubator. Too large air cells in eggs. Too much dampness in cellar. Egg chamber too dry when hatching.

PIONEER MONUMENT.

The Nineteenth Ward of Salt Lake City

PRESENTS ITS THIRD LIST.

Other Wards are Preparing Theirs. Send them !

CARD FROM THE FIRST PRESIDENCY

Salt Lake City, Jan. 25, 1895.

Notice is hereby given that contributions to the monument to be erected in Salt Lake City in memory of Brigham Young and the pioneers will be received, and until further notice, be acknowledged through the columns of the DESERET NEWS. It is expected that agencies for the collection of funds for this worthy purpose will be established in each ward in all the Stakes, and that such funds, with the list of names of the contributors, will be forwarded as frequently as convenient to Heber M. Wells, secretary of the Brigham Young Memorial Association, Salt Lake City, who will see that same are properly acknowledged in the NEWS.

We earnestly hope that the people will respond generously and promptly to this call so that if possible the monument may be completed, dedicated and unveiled to the public by the 6th day of next October.

WILFORD WOODRUFF,
GEORGE Q. CANNON,
JOSEPH F. SMITH,
First Presidency of the Church of Jesus Christ of Latter-day Saints.

ACKNOWLEDGMENTS.

The Brigham Young Memorial association acknowledges receipt of the following contributions to assist in the building of the Pioneer monument:

From the Nineteenth ward, Salt Lake City:

Charles Hunt	$ 50
W H Culmer	1 00
G A Walker	2 00
Frederick Schwabb	1 00
A W Carson and wife	1 00
Emily W Cannon	25
Frankie Cummings	25
David Cummings	25
Sophie Cummings	25
Thomas Riddle	25
Mrs Thomas Riddle	25
Hans Christopherson	25
Ida Christopherson	25
Hannah Ellen Carson	25
H J K Wilcox	1 00
Mr Blackett	25
Mrs Blackett	25
Mary Edward	25
Carrie Edward	25
Lillie Edward	25
Jacob Sevel	25
Catherine Sevel	25
Lorenzo Cooper	25
Hattie J Simpson	25
Joseph Coddle	1 00
Jane Detwiler	25
Annie Cannon	25
Gertrude Partridge	25
Louisa Gurrey	25
Clark	25
Richard Lindell	25
Mary Colwell	25
Sarah Colwell	25
John Colwell	25
Frank Colwell	25
Hyrum Colwell	25
Moses Colwell	25
Melissa Colwell	25
Nellie Colwell	25
Willie Colwell	25
Amelia Kraft	25
Sarah Ann Evans	1 00
J M Winder	2 00
Jane Winder	1 00
La Rue Tanner	25
Alonzo Evans	25
Maria Sanders	25
Elma Sanders	25
Nellie Sanders	25
Martha Sanders	25
Louisa Sanders	25
Oliver Sanders Jr	25
Sarah Harris	25
Mary E Harris	25
Margaret Wilson	25
Clara Brereton	25
Mary Foster	25
George E and Mary Wilson	2 00
Elizabeth A Knight	25
Sarah Knight	25
William Gardner	1 00
Alice Horwell	25
Albert T Jackson	25
Jessie Jackson	25
Catherine L Rowson	25
Total	$ 41 00

Previously acknowledged:

From Bennett Park	$24 00
" Deer Lodge Stake	108 10
" Beaver Stake	15 25
" Box Elder Stake	20 75
" Cache Stake	30 10
" Carbon Stake	10 00
" Cassia Stake	12 00
" Emery Stake	15 00
" Juab Stake	20 00
" Kanab Stake	10 00
" Kanosh Stake	14 75
" Maricopa Stake	20 00
" Millard Stake	21 00
" Morgan Stake	20 00
" Oneida Stake	30 00
" Panguitch Stake	20 00
" Parowan Stake	30 00
" Pioneer Stake	102 00
" San Juan Stake	40 00
" Sevier Stake	20 00
" Snowflake Stake	20 00
" Star Valley Stake	15 00
" St. Joseph Stake	1,171 45
" St. Johns Stake	41 00
" Summit Stake	10 00
" Tooele Stake	40 00
" Union Stake	15 00
" Uinta Stake	15 00
" Wayne Stake	10 00
" Weber Stake	40 00
" Woodruff Stake	10 00
" Young Stake	10 00
" Bannock District	10 00
" Raymond District	10 00
" Bear Lake Stake	20 00
" Star Valley Stake	15 00
Total	$2,512 05
Friday's acknowledgment:	
From 19th Ward, City	71 45
Grand Total	$2,583 50

BEST IN THE WORLD.

RISING SUN STOVE POLISH. For durability and for cheapness this preparation is truly unrivalled.

THE RISING SUN STOVE POLISH is quick in its effects, lasting in its results and economical in use, a little being sufficient to cover a stove.

THE SUN PASTE STOVE POLISH is a quick, brilliant and lasting polish, and can be used with a brush.

MANF. BY W. BAKER, PROPR., CAMBRIDGE, MASS., U.S.A.

Mr. D. Wiley, ex-postmaster, Black Creek, N. Y., was so badly afflicted with rheumatism that he was only able to hobble around with canes, and even then it caused him great pain. Afterwards Chamberlain's Pain Balm he was so much improved that he threw away his canes. He says this treatment did him more good than all other medicines and treatment put together. For sale at 50 cents per bottle by druggists.

LEGAL NOTICE.

In the Probate Court in and for Salt Lake County, Territory of Utah.

Notice of motion and order for the hearing of petition for sale of real estate.

In the matter of the estate of Mary Ann Pack, deceased.

PURSUANT TO AN ORDER OF SAID court in said matter, notice is hereby given that Tuesday, the 6th day of July, A. D. 1895, at 10 o'clock a. m., at the Library Court House in Salt Lake City, Utah Territory, in the county of Salt Lake, Utah Territory, is the time and place for the hearing of a petition of John H. Lawson, praying for an order of sale of the interest of said deceased in the real estate hereinafter described, belonging to the said estate, and authorizing the administrator to sell the same, and that at said time and place any person interested may appear and show cause why the petition should not be granted.

Dated June 7, A. D. 1895.

C. R. STANTON,
Clerk of the Probate Court.

By A. C. BERRY, Deputy Clerk.

LEGAL NOTICE.

In the Probate Court in and for Salt Lake County, Territory of Utah.

In the matter of the estate of Jessie A. Cushing, deceased.

NOTICE IS HEREBY GIVEN THAT the undersigned, administrator of the estate of Jessie A. Cushing, deceased, late resident for said county, and that said court, by its order duly made and entered on the petition of said administrator, praying for the sale of the interest of said deceased in and to the real estate of said deceased, belonging to said estate, and authorizing said administrator to sell the same, and that pursuant to said order, and by virtue thereof, on the 1st day of July, A. D. 1895, at 10 o'clock a. m. of said day, at the Court House in Salt Lake City, Utah Territory, in the county of Salt Lake, Utah Territory, I will sell at public auction, and at the place where said court is held, the following described real estate, or so much thereof as may be necessary to satisfy said petition and the costs of this sale, to wit:

Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40,