

## NOTED AUTHORITY ON CHARPITTING EXPLAINS METHOD

Begins With Preparation of Stump and Takes Learners Along Until Last Wet Root Is Burned Out.

Charpitting of stumps is attracting more and more interest in western Oregon and southwestern Washington where there are thousands upon thousands of logged off lands waiting to be cleared and made productive. To blow up the stumps with dynamite is an expensive operation, but it is held that by employing the charpitting method stumps can be removed at from 35 to 50 cents each. Another important feature is that charpitting leaves the top soil undisturbed, whereas by blasting poor soil is brought up from below with the roots of the stump.

A number of inquiries have been received by The Journal the past few days seeking information on charpitting. For the benefit of those interested, excerpts from an address delivered by W. J. Sparks, supervisor of demonstration farms, Washington state college, Pullman, Wash., before the Farm Products association at Everett, Wash., follow:

"Nearly everyone knows, who has experience in clearing land, that any old wet or perfectly green timber can be burned, providing we have enough good fuel for starting, and we pile onto a good fire, while by itself no amount of coaxing will avail. Let us investigate some of these causes. First we have the match tipped with a mixture of such highly combustible material that very slight friction causes ignition which in turn sets fire to the stem of the match, this fires the shavings, the shavings the kindling and so on, the more favorable material by the heat generated preparing the next.

**An Open Air Illustration.**  
"If you will shave off a ribbon of wet wood and apply a burning match to the end, by observing closely you will see a change in the color of that wood; that most exposed to the flames of the match, being dried, burns and dries oth-

er portions, the water being evaporated as the burning proceeds and if burned in the open air will result in more or less complete combustion, leaving nothing but the ash. If we would confine the heat generated within a small space around the wood, the drying and burning would be greatly facilitated, and again when we can control the amount of air, admitting only sufficient for slow combustion, thus driving off the gases and carbonizing (charcoalizing) the fiber in the wood, we have the essential factor in charcoal burning. We have learned from the miners of Alaska that old logs in frozen gravel can be burned by building a little fire at one end in such a way that as the burning proceeds the frozen gravel will be thawed and fall down and cover the fire. In the same way engineers tell us who have laid logs over a swampy piece of ground as a first foundation for a roadbed, covering over with soil, that in dry season if the ends of these logs get on fire, the fire will follow the full length of the log under the grade, thus burning old wet material that could not possibly be burned in the open.

**How to Prepare for Charpitting.**  
"This principle applied to the stump we have called charpitting and on favorable soil we prepare the stump by removing the bark down to the ground and if the stump is green or has some water soaked sap wood, we believe that chopping through the sapwood in a few places to the live wood below will aid the fire reaching good wood. We next procure some dry wood, broken or cut, about the size of ordinary stove wood, and selecting some of the best for our start, we pile the wood around the base of the stump, commencing on the side of stump from which the wind is blowing so that when our fire is lighted the wind will assist in carrying the fire around the stump. We so arrange our wood that it will be continuous all around the base of the stump, the top of each succeeding stick lapping into or alongside of that preceding it, and so arrange that it will burn and that the fire will follow. The amount needed will vary with the size and conditions of the stump; in extreme dry weather a small quantity of the old dry material will suffice, but as the wet season and general unfavorable conditions advance we must use more fuel and look carefully to the start.

"A good wheelbarrow load will usually be sufficient for the average stump, say 34 inches in diameter. This completed, we gather up some pieces of bark, rotten wood, chips or ferns if they are convenient, filling in around the top of the wood to keep the dirt cover from falling in between the fuel and the stump on the start and with a shovel cover over the wood from the ground to the stump at the top of the wood with the exception of a small opening left on the side where we have put our kindling for the first start, where we usually put some bark or old chunks of wood arranged in such a way as to

prevent the dirt from falling into the fire on the start. We find that many who have heard of this method have a wrong impression of this cover, believing that the whole stump must be covered over, which is wrong. We cover but a small portion of the average stump, a layer of three or four inches of soil over our wood being ample, and this soil should be spaded up and laid onto the wood with reasonable care. Do not stand off at a distance and throw the soil, as this would break the soil into small particles, which would be mixed with the wood instead of being over the wood. Avoid tamping or packing the cover, leaving the soil loose and open, and purposely so placing the first shovelfuls around the base at the ground so that there will be small openings to admit air on the start, covering closer as we proceed up toward the top of the wood. We think it advisable to use a few shovelfuls of fine soil around the stump at the upper part of the wood after the covering of soil has been put on so as to close the small openings at the top of our pit, as the heat generated by our first fire would have a tendency to rise and escape through any openings. We want to conserve the heat and concentrate it onto the stump.

**Preparations for Fruit Firing.**  
"The preparation of the stump and first firing is much the greater part of the work. We can afford to use some care in this first work. We soon learn to judge the right conditions by experience, a light covering being more favorable to rapid burning, but not so good a protection against adverse conditions such as rains or high winds. We learn that blue smoke issuing through some of the small holes in the covering indicates the burning of the carbon and calls for more cover. A dense white smoke indicates escaping gases and steam and right conditions. Gradually the fire eats its way into the stump and after the first day does not need attention other than each morning and each evening, when all fire showing beyond or through the covering should be covered over, pushing the hot earth next to the fire over onto the fire and replenishing with fresh earth as often as necessary to keep cover of sufficient thickness, but when the top of the stump is burned off, complete the cover.

**Roots Really Burn.**  
"This practically finishes the work. The roots may continue, if large, burning for several weeks. If there are any large roots near the surface they should be covered ahead of the fire. Does this method burn out the roots? is the question asked more than any other. We answer, yes. All that we know who have given this method a fair trial agree that it is cleaner in its work than any other method tried. There is not any reason for doubt but what this method will effect a very great saving on the clay soil and to adapt it to the unfavorable conditions have received our special attention for the past few weeks. We have not reached any definite conclusions yet, our work being all in the experimental stage. Our first trial was

In an endeavor to find some cheap material that could be sprinkled on or mixed with the soil to act as a binding agent holding the fine particles together. None of these experiments were entirely satisfactory. We received some encouragement for further trial in the use of lime mixed with the soil just the same as you would prepare mortar for a wall. There would be one redeeming feature in the use of lime as we would have a valuable fertilizing agent added to the soil by its use.

**Cheap Artificial Cover Needed.**  
"Passing over the details of these experiments we pass on to some of the most promising, and am pleased to say that I think we shall solve the problem. Perhaps not so satisfactorily as we would wish to do, but to that extent that there will be a decided improvement over present methods. Our effort has been to find a cheap artificial cover and to reduce the amount necessary by this use of a concentrated fuel. We have used coal cinders and clay hauled onto the ground from the most convenient supply, to good advantage. We prepare the stump by digging a narrow trench around it, sloping the bank out at top in such a way that the sandy loam soil will not run into the fire when hot. We filled in with a small portion of clay or cinders, then placing our fuel in much the same way as we did before, we proceed to cover with clay or cinders. Experiments have indicated that the concentrated fuel requires less covering and being placed in the narrow trench around the base of the stump, the fire is started lower down and the work is done much more rapidly. We have used one to two gallons of fuel oil with small quantity of wood, pieces of bark, old broken up wood and placed in trench to receive the oil which we pour in on top of this, before covering with the clay or cinders. At the present time fuel oil (a low grade crude petroleum) can be purchased for about four cents a gallon in large quantities, or \$3.50 for a 50-gallon barrel.

"In conclusion I will say that there are several good promising experiments yet to be tried. Our effort will be to adapt the charpitting method as far as possible to the varied conditions of our soil."

### MORE POSTAL BANKS NEEDED EVERYWHERE

(United Press Leased Wire.)  
Washington, March 2.—Because he has not enough postal savings banks to go around, Uncle Sam, as a banker, is losing thousands of dollars weekly. "Every day," said a postoffice department official today, "scores of letters are received by Postmaster General Hitchcock from persons in all parts of the country with sums ranging from \$100 to \$1000, which they wish to entrust to Uncle Sam for safe keeping. There is no postal bank in this city, and the law prohibits a resident of one city from depositing in a postal bank located elsewhere."

*A. B. Steinbach & Co.*

## Spring Showing of Manhattan Earl & Wilson and Cluett Shirts



We're ready to supply the shirt wants of all Portland, whether it be the poular or higher priced goods that are desired. Earl & Wilson and Cluett shirts, all the new spring patterns and colorings, plain and plaited bosoms, strong lines at \$1.50; Manhattan shirts. We specialize a genuine fine woven Madras in patterns that are bound to please at \$2.00.

### SPRING UNDERWEAR

Fine all-wool Stuttgarter natural gray \$1.50; fine fancy lisle medium weight for spring wear, \$1.50 garment.

### Hole-Proof Hose

The Genuine and original guaranteed hose for men, women and children, guaranteed no holes for 6 months.

Men's \$1.50 box of 6 pairs; women and children's, \$2.00 box of 6 pairs; silk lustre for men and women, \$3.00 box of 6 pairs.

# A SALE SO IMMENSE IN MAGNITUDE IS HELD BUT SELDOM

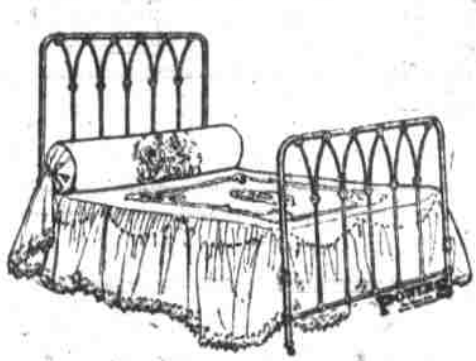
## More Phenomenal Removal Sale Bargains

The immense Furniture and Carpet Business that we have been doing since the opening of this sale is the talk of the town, but is there anything surprising about it when you consider the fact that we have offered the most remarkable values ever offered in Portland? Would you pay the regular price at other stores when you can come here and buy for one half the price they will ask you? This is why this sale has been so successful—why your neighbors and friends are talking about it.



\$16.75 Oak Dining Table \$9.95

Solid Oak Dining Table, with round barrel and shaped legs. A most substantial, well made article, extends to 6 feet when opened. At a special price, as low as others would ask you for the printed, soft wood kind.



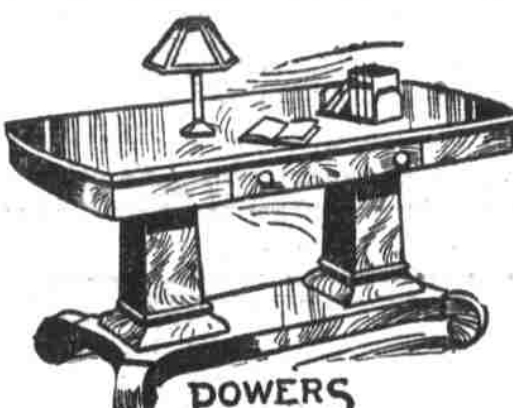
\$11 Iron Bed Full Size for \$5.50

An attractive Iron Bed design, with continuous posts, and effective finger rod connections. Made very strong and substantial. Extended foot end, can be had in white or blue.



\$20.00 Mission Table \$10.75

A Library Table in the Early English finish, very similar to cut. The top is 25x38 inches and contains long drawer. There are 3 slat panels in the end instead of two, as shown.



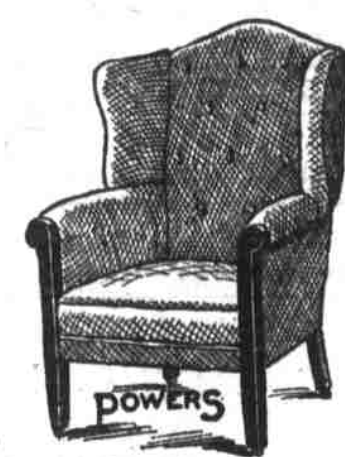
\$60 Quartered Oak Library Table at \$34.75

A high grade Library Table, built of finest selected quartered top, with 30x48 inch top, containing two drawers. A massive finely constructed table for the library. The saving is almost half.



\$1.20 Dining Chair for 75c

Exactly like cut, finished in quartered oak effect, has brace arms, saddle seat and panel back.



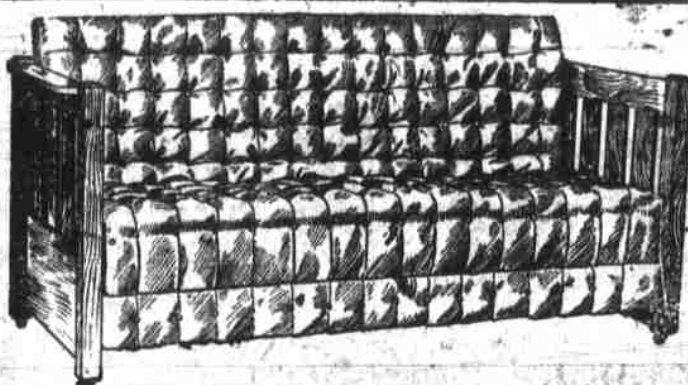
\$48.50 Leather Easy Chair for \$29.50

An example of the popular Library Wing Chair, built with finest springs and upholstery, and covered in best quality genuine leather. Others at greatly reduced prices.



\$25.00 Quartered Oak Buffet for \$13.95

Quartered Oak Buffet, like cut, 42 inches in width, with French bevel plate mirror 10x38. Has double door storage compartments and 3 drawers above. Exceptional value.



\$65 Sofa Bed \$39.75

Exactly like cut, massive quartered oak ends, tufted velvet seat and back, deep box, high quality style, and workmanship. A splendid davenport. A comfortable couch.

### Window Shades

33c

50c NEPTUNE SHADES, 36x84

In green and tan, mounted on good roller, with cord, etc. To sell tomorrow at the special price of . . . . . 33c

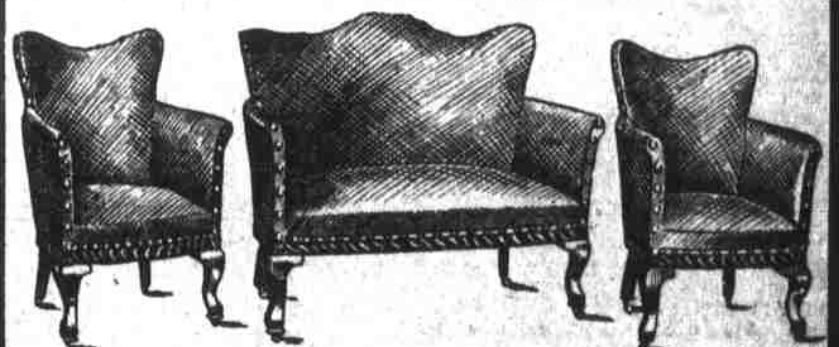
### Couch Covers

\$2.65

\$5.00 TAPESTRY COUCH COVER

An assortment of excellent patterns in both oriental and floral, with or without fringed edge. Extra special price . . . . . \$2.65

### \$115 Genuine Leather 3-Piece Parlor Suite Now \$57.50



Exactly as pictured, frame of mahogany, covered with genuine leather, with deep spring seats and comfortably shaped back. Suite consists of settee, arm chair and rocker. A suitable office or library set. The price is exactly one half. Don't try to match this value, it is out of the question.



\$51.50 Leather Turkish Rocker \$33.50

Upholstered in genuine leather, tufted back and arms, Harrington spring base, highest quality.



Leather Seat \$11.25 Was \$20

Mahogany finished frame, genuine leather seat, durable high grade construction.

### Brussels Carpet

59c

\$1.00 TAPESTRY BRUSSELS CARPET

To be closed out at this exceptionally low price. A varied line of choice patterns. The biggest bargain you've been offered.

### Wool Velvet Carpet

96c

\$1.65 WOOL VELVET CARPET

You save 79c a yard on an excellent grade of Velvet Carpet—quite an item in the floor coverings of your room. Quality as good as \$1.65 will buy.

**POWERS**  
THE STORE THAT SAVES YOU MONEY  
DIGNIFIED CREDIT FOR ALL FIRST AND LAST