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### Wood Bearings for Journals and Shafts.

MESSRS. EDITORS—In No. 42, of the present volume of your paper, I saw a notice and drawing of a journal box, for a propeller shaft, which is claimed as an English invention; so far as the application of that particular kind of joint box, to propeller shafts, it may be an English application; but for almost every kind of journals, for ordinary machinery, both in the water and out of water, and for journals of very high velocity, and for heavy over-shot water wheel journals, with a slow velocity, and where the journals have been lubricated with oil, tallow, and water—I claim it to be an American invention of at least twenty years application.

I have had much experience, and perhaps have experimented as much in the application of wood for journal boxes as any other person in this country, for the past twenty years, and I am fully satisfied that there is nothing now known that is as good for that purpose, as wood, properly prepared.

For the benefit of your readers, I will give the result of my experience, and the conclusions I have arrived at on this important subject. The best wood in our forests for journal boxes, is the Soft or Silver Maple, which grows in wet or swampy land, —either the root, or the body of the tree as near the ground as it can be cut,—taken direct from the tree or root full of sap, and worked out in blocks or strips to suit, and then boil it in tallow that is simmering hot, but no hotter, (for if it is made too hot, there is great danger of charring the wood,) until the heated tallow drives the sap all out of the pores of the wood; then sink the blocks or strips in the tallow, and let them remain there until all are cold.—Now take the blocks or strips, and fit them into the iron pedestal box or into the grooves, as represented in engravings in No. 42, Vol. 10, with the end of the wood to the journal, and not to the side, as there represented.

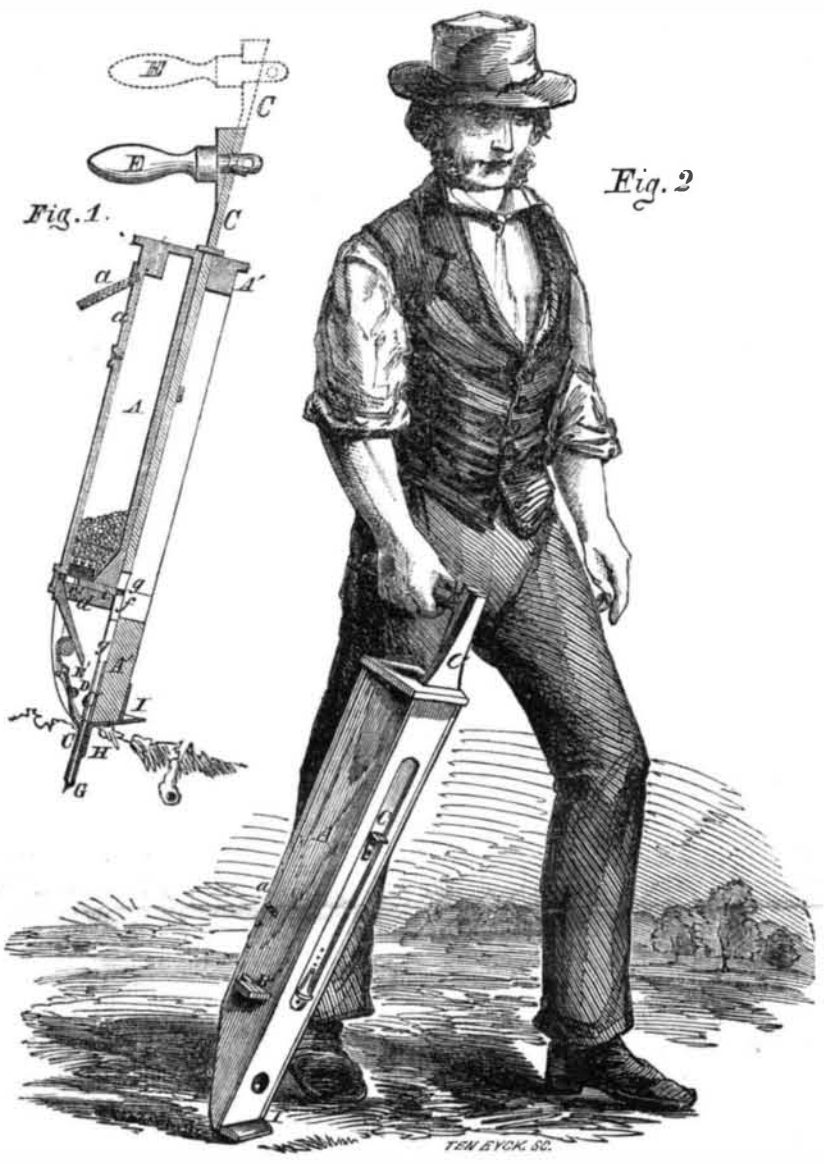
This mode of preparing wood in tallow, I claim as original with myself; it changes the nature and quality of the wood, and makes a journal box that will be more durable than any other known substance, but in all cases the journal should revolve on the end of the wood, instead of the side, as many are in the practice of using it. Where it is practicable, the best lubricator for a journal arranged as above, is clear pure water.

O. H. P. PARKER.

Philadelphia. July 20, 1855.

[Mr. Parker's information is very useful. The figures referred to by him as published by us, showing the application of wood bearings for propelling shafts of large steamers in England, is not represented to be a new invention. We published them to show a new application, and also for the purpose of showing that they were held to be superior to the more common metallic bearings. Wood bearings for water wheel shafts were used two centuries ago. About two years since a correspondent informed us that, after many experiments, he discovered that molten lead, run into the pores of wooden boxes, formed the most perfect of all shaft bearings.

## WAKEFIELD'S HAND SEED PLANTER.




The annexed engravings are views of an improved Hand Seed Planter, for which a patent was granted to Charles A. Wakefield, of Plainfield, Mass., on the 25th of July, last year, but not brought thus publicly into notice before.

Figure 1 is a vertical section of the planter with the plunger out, and figure 2 is a perspective view, showing a farmer *awake in the field*, planting his seed with ease, rapidity, and correctness.

A is the hopper or box containing the corn —it is filled through the lid, *a*. A′ is a guide frame in front of the seed box, to direct the up-and-down movement of the embedding plunger, C, which, in its double movement, by the groove, *g*, and pin, *f*, alternately opens and closes a delivery slide, which works in a groove, *e*, in the seed box at its bottom. This slide has an aperture in it. As plunger C rises, a suitable number of grains of corn for a hill, is conveyed through the passage, *c*, into the receiving chamber, D. In the descent of the plunger, C, when planting, the delivery slide, is drawn back to take in a fresh supply of grain from the hopper, and hold it ready for another delivery, at the same time the plunger, in its descent, ejects the charge of corn previously fed down into D, and embeds it at the proper depth in the soil. The plunger, C, opens the receiving chamber, D, by pressing against the back plate of it, which is acted upon by spring E′, to allow the grain to pass out, and also to close said chamber again when the plunger is drawn back, so as to retain the seed fed into it for the next hill. G is a flange projecting from the plunger, C, at its bottom, on the rear side, for guiding and holding the grain, when being embedded between it and the short front plate, H, which enters the ground and projects from the broad stop plate, I; this latter plate stops the further entrance of the implement into the soil. The side flanges project from the front plate, I, and serve, in conjunction with the elastic back plate of the chamber, D, and bottom plate, H, to scrape off the dirt adhering to the sides and edges of the plunger, C, when it is drawn out of the ground into the chamber, D. Any suitable device may be used for gauging the stroke of the plunger, to vary its depth of hole for the seed. E is the handle of the plunger, C, which is used as shown in fig. 2; it is placed obliquely to the plunger, and is used by the operator to give the plunger an oblique direction into the soil. The implement is carried and used as shown, like a walking cane, requiring no delay, and is easily operated. The person using it steps from hill to hill, striking the implement into the ground, like a cane, causing the short front plate, H, to enter the soil, the stop plate, I, to bear on the earth, and the plunger, C, to eject the corn or seed through the bottom of the receiving chamber, D, and force it to its required depth obliquely into the ground, after which, by raising the handle, the plunger, C, is elevated in the same oblique direction, the stop plate, I, answering for a fulcrum during lateral strain upon the plunger, in drawing it out, whereby the earth is shaken over the seed and covers it; the scrapers and side flanges also scrape back all soil from the plunger, making it fall on the seed, so that the perfect covering of it is thus fully insured. It is thus more certain in its operation than if it made the hole for the seed perpendicular, and carried the soil up instead of covering each hill with the implement, as it is rising out of the opening in the soil. The two simple motions of this implement or machine—only pressing down and lifting it up, like a walking stick,—by which the hole is made; the seed fed down and deposited; the seed box closed and the seed covered by the soil, makes it superior to those hand planters which require a number of motions to accomplish the same objects.

Hand seed planters are but of recent date, but their convenience and superiority to hand planting and covering with the hoe, have given them an extensive circulation in a very few years. One man, with a hand planter like this, especially in well plowed land, will plant four times as much corn, rice, beans, peas, &c., as four men, depositing the seed by the hand and covering with hoes. The economy of such an implement for every farmer, is self-evident. It is positively necessary that every machine, tool, and implement for a farm should be simple and easily repaired; without such qualities they will not find favor with our farmers. The inventor of this implement had his mind directed to these points when he invented it. It weighs about seven pounds, and the price is five dollars.

We were witnesses to the planting of one quarter of an acre of corn in twelve minutes, by one of these machines, and the work was cleverly done. This was on the farm of George Archer, Esq., Mount Vernon, N. Y. At this rate a man could easily plant 10 acres in a day.

More information may be obtained by letter addressed to Jerome, Wakefield, and Vining, New Haven, Ct.

### Cementing the Soles of Boots and Shoes.

MESSRS. EDITORS—You are not quite correct in your answer to "J. H.," of this city, in your paper of June 30. Gutta percha and india rubber, in solution, will not unite firmly the soles of boots to the upper leather, if there is any oil or grease of any kind in the uppers; soles of well-tanned oak leather may be well united with gutta percha or india rubber cement, but hemlock tanned soles will hold together but a short time. I have tried most of these experiments. A E.

Boston, July, 1855.

[We have seen soles cemented to uppers, said to be done by a mixture of gutta percha and india rubber dissolved in turpentine. We have united heels and soles of gutta percha to leather soles and heels, with gutta percha cement (gutta percha dissolved in turpentine,) for experimental purposes, but took no trouble to ascertain whether the leather was oak or hemlock tanned. The cement must be highly heated, and considerable pressure applied to the upper and sole, to make them adhere strongly.

### Invention of Pottery.

MESSRS. EDITORS—The round sea snail the size of a man's fist in their circumvolutions, eject a kind of glutinous slime with their eggs, which, being combined in a small measure with the sand, forms an article resembling a piece of pottery, which no doubt first conveyed the idea to some of our ancestors of a jar or pitcher. They are frequently picked up on the ocean shore on Fire Island by the curious researchers in the hidden mysteries of the ocean. The manufacturing of pottery is coeval with history, and the idea very likely was conceived by the first inventor from those deposits.

F. D.

Fire Island, July 21st, 1855.