

OLIVER



PLOW WORKS

SOUTH BEND, IND.
BRANCHES

MANSFIELD, Ohio. INDIANAPOLIS, Ind.
ROCHESTER, N. Y. HARRISBURG, Pa.
DALLAS, Texas. ST. PAUL, Minn.
ST. LOUIS, Missouri.



PLOW, WITH WHEEL AND NEW JOINTER ATTACHED.

This cut represents the general construction of our Nos. 10-O, C-O, 19, 20, E and 40 Plows, all of which have full Chilled Moulds, Sloping Landsides, Adjustable Beams and Cutter Points only. For capacity of each Plow, see list herein. Our Wheels, Jointers and Coulters fit all the above Plows except No. 10-O, which is too small to require them.

A Practical Farmer's Instructions

TO HIS SON

DETAILING THE MANAGEMENT

OF THE

Oliver Chilled Plows.

"Henry, my son, before commencing to give you instructions in the proper use of a plow, it is necessary that you should understand the construction of the implement you are to use, after which, you will be better able to comprehend its adjustment, and handle it intelligently. As you are aware, I have tried nearly every plow of any note, and have settled down to the exclusive use of the 'Oliver Chilled,' on my farm. The inducements that have led me to do this are these. In the first place, I cannot afford to have several plows, each of which will do but one kind of work, I want a plow that will do good work in sod and stubble, in any kind of soil, for, as you know, the farm contains several varieties of land, comprising clay, sand, alluvial bottoms, and some very stony and gravelly patches. When a steel plow has been run in the latter soil, it is useless in the alluvial, owing to its having been scratched and cut to an extent that prevents it scouring in other land, when it is sticky, as it usually is in the spring. Now, the shape of the Oliver Plows is such that they will turn sod very nicely, and when it comes to stubble work, they are simply immense; their great turning qualities just wipes out the trash and buries it all out of sight. The Oliver Jointer is an attachment of great

value in aiding this object, and I will instruct you in its use in the field, when you have mastered the naked plow."

"Father, why did you give up the use of the cheaper cast-iron plows that you used to buy so many of, before you tried the Oliver Plows?"

"Well, Henry, that reminds me that 'Experience is a dear teacher;' the cast plows you call cheap, were really the dearest plows I ever bought; I had no end of trouble to get repairs to fit them; they would not scour except in sandy soils, and the very sand that made them work, wore them out so rapidly that the cost to plow an acre with them was many times greater than it now costs me. Why, I used to buy several new cast plows every year, while the Oliver Plow you are now leaning on, has plowed several hundred acres, and its mouldboard shows scarcely any signs of wear. A saving in first cost, my son, does not always prove economical; in this case I pay more for the plow at first, but I save many times the extra amount every year, to say nothing of the pleasure of using a first-class tool; and right here let me say, I know a good farmer by his tools. They are first-class and kept in first-class order, while a slovenly one buys only what he calls cheap implements, and never takes care of them; you will find them worn out, or rusted out, before they are paid for. Make up your mind now to buy only the best, and when bought, take good care of the purchase, and you will save half the expense for implements. Don't let your tools rust and rot out; wear them out, and you will not only save money, but set a good example for others."

"Father, have you tried any other chilled plows besides the Oliver?"

"Oh, yes; I have tried them all, and each test made me a still stronger advocate of the Oliver Plow. Many of the others were chilled only in name; they were made of hard cast-iron only, and the only chill they ever received was given by 'the cold wintry winds of December.' Other hard iron plows are called by some high-sounding name, to deceive us farmers; and, though warranted to be harder than chilled metal, they fall far short of the guaranty. Other plows are chilled in spots, and after a season's use, and sometimes even less, they show a very

uneven surface on their moulds, as the soft spots wear away and leave the chilled portions scarcely touched; the soft places are rapidly cut by sharp soils, and this, with the uneven surface makes the earth stick to the metal, and then good-bye to good work, light draft and comfort."

"I heard you advise our new neighbors the other day, to buy an Oliver Chilled Plow, and be sure to get the genuine; I thought there was but one plow of that name. Is there more than one, father?"

"Well, Henry, there is but one make of 'Oliver Chilled Plows,' but since those plows have been so successful, and came into so general use, unprincipled men have sought to profit by the hard work of the Inventor, Mr. Oliver, and have made imitations of his plows, which are frequently sold as the Improved Oliver Chilled Plows. They have copied his style of painting and some other features of his plows so closely, that the only safety now lies in seeing that the name, 'Oliver' is on the beam and handles of the plow represented to be his. If you will remember this simple item, you will never be deceived when buying a plow. Just remember that you want an 'Oliver Chilled Plow,' and you MUST see the name 'Oliver' on the beam and handles. You see those light lines crossing the face of the Oliver Mould at right angles? Well, they are evidence that the mould is perfectly chilled; you will not see them except in 'Oliver's Chilled Metal;' they show that every part of the mould was in direct contact with the face of the chill. The lines are on the chill face the same as type is on the printers' form, and the metal cannot be chilled unless it is cast in direct contact with the chill, and receives an impression of the lines, any more than a perfect paper can be printed without being pressed in direct contact with all the type. When they are inked, you know a perfect impression can be made every time a fresh piece of paper is placed on them and pressure is applied, and with the lines in the chill face, (which act as ventilators for the escape of the vapor and gas, leaving nothing but the melted iron in the flask to come in contact with the face of the chill,) perfect results are just as certain as printing. These ventilating creases are one of Mr. Oliver's best inventions, and are used only by the Oliver Chilled Plow Works."

"Father, why is it that you do not clean off the mould of the Oliver Plow as you used to clean the steel plows, used in that sticky field by the river?"

"Steel and 'Oliver's Chilled Metal,' Henry, will rust if not wiped dry after using, but with this difference: When steel rusts, it becomes rough on the surface, as the metal corrodes, and then will not scour, but 'Oliver's Chilled Metal' will not corrode; it will rust, of course, but the heaviest coat that can accumulate on it will be entirely removed by a few minutes use and the metal will be as bright and smooth as before in fact some of our friends told me it is smoother after rusting. I do not know this to be so, but I do know that the longer the metal is used the better it scours; and there again it shows its superiority over steel and all other plow metals; but we are spending rather too much time, my son, and I will now explain the construction of the plow: You will notice that its beam is adjustable and is located at the back end, nearly midway between the handles, while the front end is set with its landside face about the centre of the nose of point. This makes it a centre draft plow, and the beam acts just like the tongue of our wagons. The standard is so located that it is inside the line of the furrow edge, which allows the trash to pass, without choking the plow, under the beam."

"Father, why is the Oliver landside made slanting, instead of straight, as on other plows? I heard an agent of another plow making a great fuss over his straight landside plow being better than the Oliver sloping landside."

"Straight landsides, my son, were on the first plows ever made, and are used yet on every plow except the Oliver; other makers, I presume, cannot put them on their plows, owing to Mr. Oliver's patents, and the only thing they can do is to raise a hue and cry against them, in hopes of getting the farmers to use the old-style straight landside plows again. A sloping landside plow works with less draft than the other kind, as the furrow turns over by its own weight after the mould has set it on edge; they turn a furrow better when working up hill and the landside of the furrows does not slide down and on the furrow bottom. Again, a centre draft plow cannot be made except

The above cut represents the general construction of our A, B, 18, 21, 30 and H Plows, all of which—with the exception of the Nos. A and B—have both plain and cutter points. The A and B plows have plain points only, the other numbers are fitted with plain points when they leave our works, and cutter points are sent with each plow as an extra. They all have full Chilled moulds, adjustable beams and sloping landsides, with the exception of No. 21, which has a straight landside. For capacity of each plow, see list of plows herein.



OUR WHEELS, JOINTERS AND COULTERS

Fit all the above Plows, with the exception of the Nos. A and B, which are too small to require them. The No. 21 Plow having a straight landside, requires a straighter hanging coulter than other patterns, which have sloping landsides, hence we make a special hanging coulter for that plow.

with a sloping landside; there are straight landside plows claimed to have a centre draft, but the beams are set out of line so far that the plows do not run true, and drag on one handle, sufficient to cause annoyance to the user and increase the draft for the team. When you have had sufficient experience, and tested the matter for yourself, you will find that, notwithstanding all the reports of interested makers and dealers, Oliver's Sloping Landside Plows draw easier than straight landside plows, and, with deep-suction points, will hold to the ground better than any others. If this were not so, there would not be over 350,000 of them in use now, all of which were sold to farmers after trial, and could have been returned to the dealer if they were not satisfactory in every respect. I have spent a large amount of time and money, my son, to learn the lesson, and I hope you will profit by it, and remember that for good work, light draft, durability and other merits, 'The Oliver Chilled Plow' is the only one possessing them all. Now let us go to the field and you may try your hand at plowing. Take those short doubletrees, which are but three feet long; we could use our wagon doubletrees, but they are so long and heavy that their motion makes a plow sway and twist; the short doubletrees are lighter, and a plow handles so much better with them, that I cannot use any other with satisfaction."

"Well, here we are, and now for some work. In the first place, let out the traces and take off those lifting-straps; I always want a long hitch to my plow, and do not want the lifting-straps to counteract the effect of the long traces."

"Why, father, I have always understood that the closer the hitch to a plow, the easier it would run for a team."

"That is well enough in theory, my boy, but in practice, I want my traces long enough to enable me to hitch in the lowest hole of the clevis, when my point is new and sharp, and not hitch higher than the centre clevis-hole when the point is dull. This cannot be done with a short hitch, such as is usual for wagons. Here is a set of double links which you will place between the doubletrees and the clevis; the rings give a longer hitch, and prevent the motion of the doubletrees being communicated to the plow beam and thence to the handles. With

a long hitch and the rings, a plow will run flat on its landside, the points will wear longer, and a plow will handle so much better, that if you will try the usual manner of hitching to a plow, and then try my way, you will admit that it pays to take the little extra trouble to have everything right."

"Well, father, I guess everything is as you want it. Please look at the team and plow now."

"Very nicely done, Henry; you can now start the plow, and after going a short distance, let me know how it handles."

"Get up, Pete and Bill; steady now, steady; whoa. Father, the plow seems to lean on the mould, and don't hold anything like as well as I thought it would, after all the trouble I took to have the hitch right."

"The trouble is caused by the beam being out of balance; when properly adjusted, Henry, the plow will run without handling; you must move the beam towards the side it leans; loosen the bolt at the back end of the beam, and also the centre; now move it toward the mould about a quarter of an inch or less, then bolt it tight and try again. That is right, now go ahead. How does it do now?"

"It now leans on the landside, father, nearly as much as it leaned on the mould before I changed the beam."

"Well, that is what I thought it would do, as I purposely advised you to make too great a change, to show you the result. Stop the team and move the beam about an eighth of an inch toward the landside; that is about right. Go ahead once more and see what it will do now."

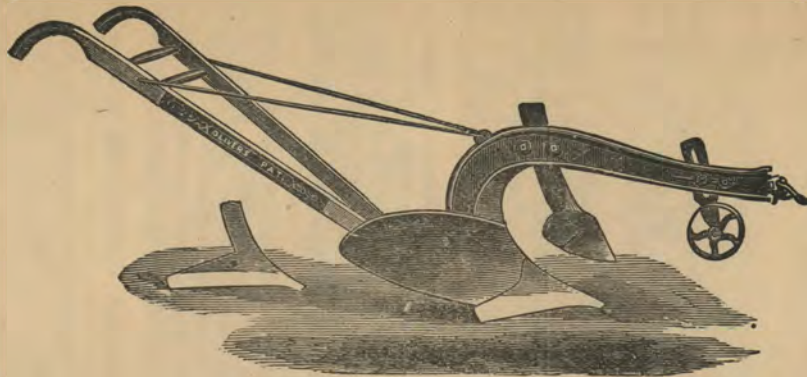
"Why, it holds now as well as anyone could wish. Just see it run alone! I had no idea that so small a change would make so great a difference; but it don't take land enough to do good work. How can I remedy that, father?"

"Move the heel of the beam toward the landside, Henry, after loosening both bolts as before; then tighten them again, and see how it suits."

"It now takes too much land; shall I move it nearer the mould?"

"Yes, my son, but do not change it too much, or it will cut too narrow, as it did before. Be careful not to move the beam at the centre bolt, or it will be out of balance again, and turn the bolt nuts tight, so it cannot slip out of place, when you have it right. Well, how is it now?"

"It's just right, now, father, see what nice work it does, and how easily the team walks along. I never imagined a plow could handle so easily, and my fears of broken ribs and a lame



NO. 22, IRON BEAM PLOW, WITH WHEEL AND JOINTER.

The above cut represents our Iron Beam Plow, which has a Full Chilled Mould, Straight Landside, and a Hanging Coulter in addition to the Attachments shown in the cut. This plow is fitted with a Plain Point, when it leaves our Works, and we send a cutter point with each, as an extra. Both points have great suction, and the plow is intended to run deep in soils that bake hard, and are difficult for ordinary plows to work.

We solicit a trial of our Wood Beam Plows, fitted with our Short Points, for the above work, feeling that they will meet the requirements of nearly every user, and give as good, if not better satisfaction than an Iron Beam Plow.

The attachments for the No. 22 plow will not fit other patterns.

back were useless, for by simply holding the handles lightly with two fingers of either hand, it keeps its furrow better than I can guide it, and does better work."

"You are getting the hang of it, my boy, and I hope you will be a first-class plowman in a short time; when you have learned all about the adjustment, you will require practice only to complete your education in the matter of plowing. I want you to notice especially the quality of the work you are doing. You see that though the ground is very foul with weeds and other trash, the plow covers nearly everything. The work you are doing would suit almost anyone, as it is really good, but we cannot afford to stop short of the best, and to secure that, we will have to put on the jointer, which I spoke to you about at the barn. Bolt it on the beam as shown by this cut of the plow, and have the cutting point of the jointer point in exact line with the cut of the plow; then set it so it will cut about one and one-half inches deep, or just deep enough to skim off a thin slice of the top of the furrow. Start up now and we will see its work."

"Why, father, it makes a great difference in the draft of the plow; I would rather plow without it, than use a jointer and make the team pull so much harder."

"You have set it too deep, Henry; it is cutting fully three inches deep, when I told you not to cut more than half that depth. In rough ground it may be necessary sometimes to cut two inches deep, but here the jointer will do good work when it cuts not more than one and one-half inches. Set it up nearly two inches, and then see how you like it."

"Now it works well, father, and I cannot see that the team feels it at all. Why, what a difference in the work; every spear of grass and every weed is hid, and a blind man can pick out the work done with and without the jointer."

"You are right, my lad, and now that you can see its value, you will do well to resolve never to plow an acre of land without one. The slight difference in draft is not worthy of mention, while the value to the soil, by having the trash buried where it will rot and enrich it, and the saving of time by freedom from weeds and trash, in harrowing and cultivating, and the extra pulverizing due to the jointer, are of great value to those who want to make a profit on farming; they cannot afford to plow without a jointer."

"That is so, father, and you may depend on me using one every time. What are you going to do with that small wheel in the wagon?"

"That is for the plow, Henry; and, while not as important as the jointer, still I always like to use one on smooth ground as it regulates the depth of the furrow, makes the plow hold

better, and increases the durability of the points by making the plow run flat on its landside at the heel. Put it on now and give me your opinion of it."

"The plow runs out of land now, Father; but I cannot see what causes it."

"It is because the wheel does not run in a line with the furrow; you have set it to run in line with the beam, and that causes the plow to run toward the plowed land. Change the run of the wheel by shifting it at the arm, under the beam; set it so the wheel will run exactly in line with the furrow; you cannot be too careful in this adjustment, for a trifle out of line towards the plowed land, or toward the unplowed, will make the plow run too wide or too narrow. Besides this, when the wheel runs out of line, the plow draws heavier than when it is in line, and it is a shame to waste horse-flesh unnecessarily."

"Now it runs right again, father, and I cannot only see, but feel the truth of your remarks. I used to think that it was not only useless, but actually foolish to cover a plow with attachments; but now that I have had a lesson regarding their value, you can put me down as a wheel and jointer man, as long as I use a plow."

"Well, Henry, you have made rapid progress so far, and we will now try the plow in some harder soil, and learn how to handle that. Let us go to the field across the road, to find just what we want."

"Well, what do you think of its work here, my boy?"

"It works well enough, except that I cannot make it run as deep as it did in the other field, unless I lift on the handles and run the plow on its nose, which you say is not the right way to run it."

"You will see, Henry, there is a great difference in the soil of the two pieces. The first field has soft, mellow earth, easy to work. The plow has on what the makers call a 'Common Point,' with which all their plows are fitted when they leave the factory; that point is just the one for such ground, or almost any soil in the spring, when the ground is moist, and in good plowing condition, but for harder soil like this, or for work later in the season, when the ground is harder, another point is required, which has more suction; the point is called 'Deep Suction,' and is to be used when the 'Common' does not run the plow deep enough. You will find one in the wagon; put it on the plow and try its work. How does it go?"

"First-rate, father, and runs as deep as the 'Common' point in the first field."

"That is good, my son, and shows that one style of point cannot be used successfully all the year round, for one that is right for soft or spring work, will not run deep enough in the

fall, or when the ground gets hard. You have not got to the end of the point business yet though; the Oliver plows have a still deeper running point, called 'Short,' to be used when the 'Deep Suction' point does not run deep enough; for instance, in hard-baked, gravelly clay, in the fall, when there has been no rain for some time, the ground gets very hard, almost like a stone; then it is that the 'Oliver Chilled Plows' show up best; just put on a 'Short' point, and while others are unable to plow you can go right along and do the work, when it should be done. The time to plow is when the ground is dry and hard; it pulverizes better, gives the air a chance to enter the earth, and the ground receives the full benefit of the operation."

"I never thought there was so much in a plow point before. What else is there for me to learn about them?"

"There are three other points I wish to speak of, Henry; they are called 'Full Chilled Points,' made of the same kind of metal as the Oliver Chilled Moulds, and are to be used only when the regular points will not scour; they will not do for very stony land, as they are not as strong as the regular points. Then there is the wrought steel points, to be used where there are tough roots to be cut, for which the edges of the cast points cannot be made sharp enough. Lastly, there is the marsh share, made of cast cast-steel, intended for plowing marsh sod; they have a wide-cutting edge on the wing and a sharp-edged cutter in front, and are the only point I know of that will work well in marsh land. I have tried all these points, and the more I know of them, the more I admire the makers for supplying so fine an assortment, to meet all the requirements of our business."

"They have certainly done well for us, father, and deserve our thanks."

"I and every other thinking farmer, do thank them, Henry, and let me caution you now, while we are talking on this matter, never to be guilty of condemning the Oliver Points in the fall, as I have heard of some doing. When the ground is very hard and baked like a brick, a point will wear out much sooner than it would if used in softer soil; then unthinking men will say the points are not as hard as they used to be, and condemn them. The fact is, a point may plow twenty or thirty acres when the ground is soft, and wear out, or rather become too dull to use before it has plowed five acres, or even less, in that same soil when it is baked hard in the fall. They wear out sooner, simply because the ground is so much harder to plow. Just break that Common point and see how it looks."

"The edge and nose are made of a white-colored iron, and the other part is made of a darker shade; what does that denote, father?"

"The white iron, as you call it, is the chilled iron; every Oliver

Point is chilled on the cutting edge and nose, where the friction is greatest when in use, while the body of the point is made of gray iron, which is the strongest grade, and prevents breaking when an obstruction is encountered. Every point made by the Oliver Chilled Plow Works is made in that manner, with chilled edges and nose, and strong iron in the body of the point; nothing can be harder than Oliver's Chilled Metal, and being hard, they must be durable; and when they wear out sooner than was expected, (judging by their wear in the spring) it is due to increased friction, and not poorer quality. You can save money in the use of points, Henry, by keeping those that are dulled by fall work, and using them again in the spring, when the ground is softer."

"I will remember that, father, and instead of complaining unjustly, I will spend the time putting my dull points where they will be handy when wanted."

"If you will live up to that resolution, my son, you will do well. Now we will try some sod plowing, and when I have set you right on that kind of work, you will have learned the theory of plowing. Let us do some work in the old pasture; the sod there is very tough, the ground is well packed, having been tramped by the cattle about five years, and it will require a point with good suction to hold to the ground. Start off and see how it works."

"The plow holds well and runs deep enough, father, but the work is not as smooth as I have seen some of our friends do with their sod plows. Their furrows are nice and smooth without breaks; are turned over very uniformly, and I like their work better than this."

"There is where your judgment is wrong, my boy; the object of plowing land is to break and pulverize the soil, so the air and water can penetrate it; the turning over exposes new earth to the action of the elements, covers trash and permits the absorbing of the life-giving properties of the atmosphere. Now, if the soil is simply turned over, in nice shining furrows, such as you like, the work is not half done; the soil must be pulverized thoroughly, as well as being turned, so the air can act on the inside, as well as on the outside of the furrow slices; you will notice that this work is not of the regular, packed, shiny nature such as you and so many others like to see, but is done right, nevertheless; it is well turned, all the trash is deeply covered, and the earth is well pulverized and very mellow. When it is harrowed it will be as nice as a garden patch. You must learn to plow so as to produce the best results, and not do the work in a manner to simply look smooth and please the eye."

"I see now, father, that I had a wrong idea of sod plowing,

and I am glad you are here to set me right; you will not find me doing that smooth sod work I liked so well, before you gave me this lesson."

"You may sometimes have to plow sod so stiff, Henry, that the jointer will not cut it. In that event you will have to use a rolling coulter, if the ground is free from stones, so the edges of the coulter will not get nicked and dulled, but in stony land where a rolling coulter would be spoiled, you can use a hanging coulter, which is fastened to the jointer holder by bolts just as the jointer is secured. In very tough, tangled clover you may sometimes find it difficult to use a jointer, but a rolling coulter can be set ahead of it, which will cut the tangled mass and leave the jointer to do only the turning. By this combination I have plowed under clover so matted, that my neighbors said it could not be done, but the coulter and jointer combined did it with ease."

"If you have finished the day's lesson, father, we had better go to the house, as dinner is about ready."

"I have given you all the instructions I think necessary at this time, Henry, but may think of something else, as you progress with the practical part of the lessons, and will end the morning's work by saying that, before you commence to use a plow, even though plowing every day, see that each bolt is perfectly tight, and every part and piece of the tool is in its right position. Wood will shrink and swell by exposure to the sun and air, and handles and beams will work loose in consequence of this. Mouldboard, landside and point bolts will also become loose, and the parts they hold when tight, will shift out of their proper places and cause trouble. If the mould slips, your new points will not fit; if the landside becomes loose and drops down, the suction will be taken out of the bottom of the plow and it will not run deep enough, especially in hard ground. All this can be avoided and time and trouble saved, by looking at the bolts every day; it requires but a moment's time to see that they are right and it is time well spent. I am aware that many will consider this advice decidedly foolish, but if you desire to have your plow when old, run as well as it did when it was new, all its pieces and parts must be kept just where they were when you bought it, and the only way this can be done, is by keeping all the bolts tight. And, finally, Henry, when you have finished work, put your tools under the shed, where they can be found when wanted again, and where they will be protected from the weather. Exposure to sun and storm costs farmers fully as much as the legitimate wear of farm tools. You cannot expect to thrive, if you do not take care of what you may have, when you manage a farm of your own. Now for dinner."

List of Oliver Chilled Plows.

The following plows have full chilled moulds, sloping landsides (except as noted), adjustable beams, and all our improvements. Our wheels, coulters and jointers fit them all, with the exception of the A, B, and 10-O plows, for which we do not make attachments, the plows being too small to use them:

- No. A1 is a pony plow, good turn to mould, and will work a furrow $4\frac{1}{2} \times 9$ inches.
- No. A-2 is same as the above in all its parts, except the mould, which is larger, and will work a furrow 5×10 inches.
- No. B is a very light, one-horse plow, same pattern as the A plows, and will turn a furrow 5×10 inches, and covers better than the A2.
- No. 10-O is a one-horse plow, and will turn a furrow $5\frac{1}{2} \times 11$ inches.
- No. C-O is a heavy, one-horse, or light, two-horse plow, and will turn a furrow 6×12 inches.
- No. 18 is a light, two-horse plow, and will turn a furrow 6×12 inches.
- No. 19 is a light, two-horse plow, smaller than our No. 20, and will turn a furrow $6\frac{1}{2} \times 12$ inches.
- No. 20 is a two-horse plow, and will turn a furrow 7×13 inches.
- Nos. E-1 and E-3 are two-horse plows, larger than the No. 20, and will turn a furrow 7×14 inches. The E-3 has less turn than the E-1, and is adapted to sod work, or heavy soil, where the former is too bold.
- No. 21 is a two-horse plow, and has a straight landside. We made this plow to show the superiority of the sloping land side; it is a fine plow of its kind, but, like other straight landside plows, has not a true centre draft, and cannot have such, the nose of the share being set too far to land. It will turn a furrow 7×14 inches.
- No. 22 is a two-horse, iron-beam plow, with straight landside, and will turn a furrow 8×15 inches.
- No. 30 is a two-horse plow, and will turn a furrow 8×14 inches.
- Nos. H-1 and H-O are two-horse plows, the former having less boldness of turn than the latter. They will turn a furrow 8×14 inches.
- No. 40 is a two, or three-horse plow, and will turn a furrow 9×15 inches.

The A and B plows are made right-hand only; the others are made both right and left hand. Where not otherwise ordered, we send right-hand plows.

 All our plows are fitted with C. points when they are shipped.

List of Shares for Oliver Chilled Plows.

The following list comprises shares for not only our new patterns of plows, but for old styles not now made, but still in use, for which repairs are needed. Particular attention is called to the change in names of the shares for our later styles of plows, and also to the change in the manner of marking the shares. Late changes in the patterns of our standard shares adapt them to the entire range of work they will be required to do. The reduction in variety will be appreciated by agents and users:

Common Shares, marked "C.," are intended for use when the soil is in good plowing condition, as in spring work.

Deep Suction Shares, marked "D. S.," are intended for dry ground, or when the C. shares do not run deep enough.

Short Shares, marked "S.," are for use in very hard, baked soil, or in stony land, where the D. S. shares will not run deep enough.

Steel Shares, are for use in soil containing roots, etc., that must be cut off, where our cast shares are not sharp enough.

Full Chilled Shares, marked "F. C.," are for use in soil comparatively free from stones, where the common cast shares will not scour. They are made with the same suction as the C. shares.

Marsh Shares, made of cast cast-steel, (for our E and 40 plows only) are for plowing marsh land, and are the only perfect shares made for that kind of work. They cut 16 inches wide and have sharp edges.

The following shows the styles of shares made for the plows named:

Nos. A-1, A-2, and B plows; common shares, both cast and steel. Plain pattern only.

No. 10-O plows; common only; cutter, light and heavy patterns; the former for use in soils free from obstructions; the latter for rougher ground.

Nos. 4 and 30 plows, plain and cutter points, both styles of which are made C. and D. S. We make also a plain steel share for the 30 plow.

Nos. 18, 21 and H plows; plain and cutter points, made C., D. S., S., F. C., and plain steel.

Nos. C-O, 19, 20, E and 40 plows; cutter points only, made C., D. S., S., F. C. and steel (cutter) points. Also marsh shares for the E and 40 plows.

No. 22 plow; one share only, with great suction, to run deep in very hard soils.

Nos. 35, 36, and 50 plows; steel shares only, plain pattern.

Where we make both plain and cutter points for a plow, we send the latter, unless otherwise ordered.

ATTACHMENTS.

Wheels are made in two styles, with straight and bent arm ; the latter is the stronger, and is recommended for all, except very smooth land. Both are adjustable, to permit them to be run in line with the furrows, and control depth of same.

Jointers are made in two styles, numbered 1 and 2 ; the former is our old style and does fine work ; the latter is bolder and smaller, and is preferred in some localities, owing to its size. The several parts will not interchange, hence it is necessary to designate which is wanted, especially when ordering repairs. Points for both jointers are made in the cutter style, and for the No. 1 we also make a plain point, for use in soils that are somewhat sticky.

Coulters are made in two styles, hanging and rolling ; the former fit on the same bracket that holds our jointers ; the latter have movable cone bearings, that can be renewed when worn out, and the shank can be adjusted to cut in line with the plow front, and control depth.

WARRANTY.

The Oliver Chilled Plow is warranted to do good work, scour in any soil, run lighter than any plow in use, run steady, with one, two, or three horses, be easily handled or adjusted, not choke nor corrode, work well in hard, dry ground, and give good satisfaction.* After a two days' trial in the field, if it fail to prove equal to this warranty, notice must be sent to the dealer selling it, and a day's time given him to make it work to the purchaser's satisfaction, failing in which, the plow can then be returned. If used longer than two full days, without any complaint, it will be considered sold. Respectfully,

OLIVER CHILLED PLOW WORKS.

The Casaday Sulky Plow.

The success of the above implement the past season has given it a leading rank over all like tools, and we have thousands of endorsers to the statement that

"IT IS THE BEST SULKY PLOW EVER MADE."

We cannot give the details of its construction within the limits of this Circular, and will only say

IT HAS NO LANDSIDE,

Which enables it to perform a given amount of

Work with Less Draft Than can be
Done with a Walking Plow,

While the saving of draft over other Sulkies must be seen to be fully appreciated. Its lever arrangement is very simple and effective.

THE PLOW BASE CAN BE SET BOLD & NARROW,

Covering the two extremes, or to any degree between them, thus allowing each user to

Do His Plowing as may Best Suit His
Own Ideas,

Without being confined to any rigid construction of Plow, as with other Sulkies.

There are many other fine features, possessed exclusively by the Casaday, and to those who are now interested in Riding Plows, or may become interested in them in the future, we invite their attention to our special circular, containing full details of the above, which we will send on application.

BILGER & GRAY,

SOLE AGENTS

For CLEARFIELD COUNTY

FOR THE

OLIVER CHILLED PLOW.

ALSO DEALERS IN

Iron and Steel,

Shelf and Heavy Hardware,

TINWARE, STOVES, OIL, PAINTS,

ETC., ETC.

Curwensville, - Penn'a.