



MANUFACTURED
BY

AKRON,
OHIO.

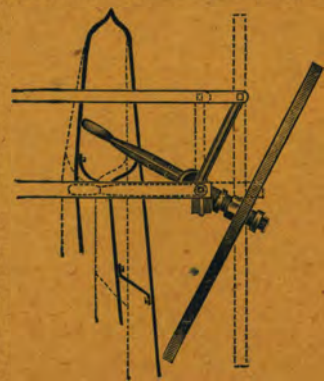
THE AKRON CULTIVATOR
COMPANY.

The Kraus *Pivot-Axle* Sulky - - - Cultivator



The **Kraus** is not only a pivot-axle cultivator as the name implies but it has connections that enable the operator to control the wheels and gangs by the same movement and **without extra effort, the wheels and shovels moving simultaneously**. Each wheel has an independent spindle or axle to which foot levers are attached. The operator sitting upon the seat in a perfectly natural position, resting, as it were, his feet upon the foot levers, has perfect guiding control over the machine, independent of the team.

By a slight and natural forward pressure of the right foot, the wheels and shovels are sent to the right and the same movement of the other foot sends them to the left, thus automatically **moving the entire machine** instantly into the desired direction, the horses continuing parallel with the row.



TOP VIEW, showing Effect of Foot-Lever on Gangs and Wheels.

By means of our pivoted axle and method of connecting the gangs, the operator can avoid obstructions or guide the shovels instantly up to or away from the row. Some idea

of the efficiency of the machine in working crooked rows can be formed when we say that it is possible to make a side sweep of thirteen inches between two hills of corn planted the usual distance apart.

This arrangement gives us also a perfect

Hillside Cultivator,

the operator turning the wheels toward the hill at an angle, thus overcoming the tendency to slip. At the same time the shovels are so held that the lower side of the row is worked with no extra effort on the part of the operator or the team. The entire machine obeys the slightest touch of the rider's foot, turning right or left at his will, carrying the shovels with it, and its manipulation is so easy that

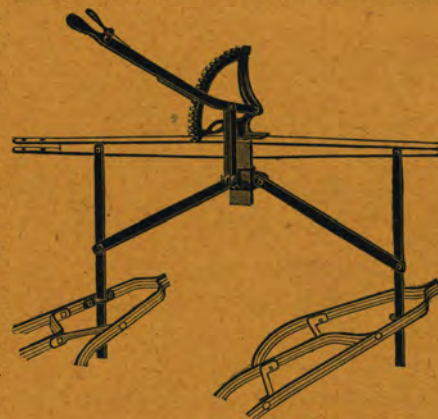
Any Boy Can Work It.

On the ordinary rigid-axle cultivators the shovels can be guided only by changing the course of the team or by applying muscular force to the gangs themselves. Some machines have the two inside beams independent of the rest of the gang, so as to enable the operator to accommodate himself to any irregularities of the row, without going through the back-breaking, leg-and-body-wearying work of drawing and pushing the entire gang by simple brute force. Its disadvantages, however, are obvious. When the independent shovel is drawn away from the gang, it must necessarily leave a portion of the ground uncultivated, and when pushed toward the gang, it works into the line of the next shovel or so close to it as to become wholly ineffective. These faults are not to be found on the Kraus.

Pushing the foot lever moves the entire machine, so that all the ground is easily cultivated, without any strain on the operator.

The lever shown in the center of the machine and accompanying detail cut is used to adjust the width of the gangs. This can be done while the machine is in motion.

On either side of the machine are levers which are used in raising and lowering the gangs. These levers afford a **spring gang pressure** by means of which the shovels can be set to any desired depth and held there, thus insuring even cultivation, and can, moreover, be so set as to work



REAR VIEW of Spreading Lever and Connections with Gangs.

up the hardest ground *without labor on the part of the operator.* See detail cut. The gangs being thus



LIFTING LEVER and Pressure Spring;
Spring Concealed in Sleeve as shown
by opening.

connected to the levers by spring hangers, instantly adapt themselves to ordinary irregularities in the surface and they also materially lessen the draft by throwing the weight on the wheels.

With our **gang coupling**, the gangs, at junction with the arch, can be adjusted according to depth of cultivation, and thus kept level at all times. This is accomplished by loosening a nut and raising or lowering the gang to the desired point. The same connection also permits the gangs to be set apart in front to correspond with the width behind, thus giving direct draft and obviating the necessity of running them at an angle. With these adjustments the gangs can be so placed as to make the shovels do the most effective work possible.



GANG COUPLING.

Seat- The seat on the Kraus is attached by a ratchet fastening permitting it to be raised or lowered or thrown forward out of the way when desired. This provides easy access to the shovels for adjustment, replacing pins or any other purpose.

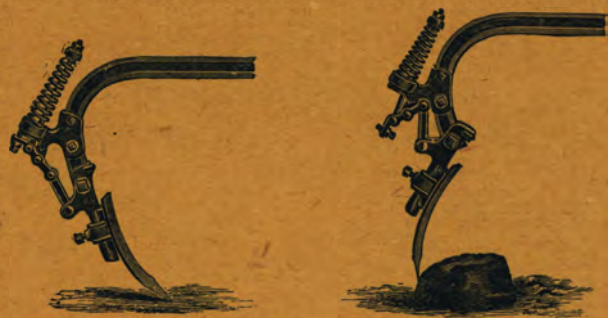


SHOWING METHOD OF ADJUSTING SEAT.
Seat in Natural Position and Thrown Forward
Out of the Way.

Shovel Fastening

An excellent feature on our machines, and one which should not be overlooked, is our method of attaching the shovel. Its advantages are apparent. One turn of the wrench will loosen the shovel so that it may be taken off, raised or lowered to regulate the depth of cultivation, or turned to the right or left, and one turn tightens it up again. The shoe has a ratchet-fastening, by means of which the shovel can be set to any desired pitch, and is held in place by means of a wooden pin, which breaks in case an obstruction is met, thus saving the other parts of the machine from strain. Where the pin is not desirable, we can furnish

Our New Spring Break



It is positive in its action, holding to its work in meeting obstructions until the strain forces back the shovel and compresses the spring. Having passed the obstacle, the spring brings the shovel to its original position. This attachment can be used on all of our Cultivators.

When the six-shovel machine is furnished as a row worker, the equipment consists of six regular shovels, two bull-tongues, or small shovels, and two fenders (Rotary, if desired, at slight additional cost) to prevent dirt from falling on the rows. For hilling purposes, two large shovels are added to the above equipment, while for fallow working there is an attachment with an additional regular shovel. Only the best quality of steel is used in our shovels, which are furnished either single or double pointed, or in any size. Extra hardened shovels cannot be guaranteed against breakage.

Our Wheel is a 48-inch, 16-spoke, steel wheel, with removable box, and 2-inch half oval tire. Wood wheels can also be furnished. When it is desired to remove the wheels for oiling or any other purpose, the gangs can be forced down until the wheels are lifted off the ground (thus serving as a wagon-jack), and wheel slipped off.

The **Kraus** is 4 feet 4 inches between wheels, adjustable to 3 feet 11 inches, and can be furnished as a four, six or eight shovel row worker. Weight, complete with fallow attachment, 428 pounds.



**CENTER
ATTACHMENT
FOR KRAUS.**

The Kraus Spring Tooth



The Kraus is also equipped with spring tooth, instead of shovel gangs. Four teeth are placed on each side and three on the center attachment.

The teeth are supplied with shovels which are fastened on by a set-screw (not bolted), same as on the regular shovel Kraus, and are adjustable in every way. All the peculiar points of merit and advantage of the Kraus Shovel Cultivator apply equally well to this machine.

Gangs are interchangeable. See description of Kraus on foregoing pages. Weight complete, 450 pounds.



CENTER
ATTACHMENT
FOR KRAUS
SPRING TOOTH.

Extension-Axle Attachment

This attachment is intended to make the Kraus Standard a perfect *bean-worker*; also to work in sowed corn where the drills are from 24 to 30 inches apart. When this attachment is applied to the Cultivator, the wheels are thrown 20 inches further apart than when the machine is set up to work in corn. By this extension of the



axle the machine straddles three rows, working two rows each time the team crosses the field, the third being used as a guide to the driver.

Some Good Points of the Kraus:

IT IS SIMPLE.
NOTHING TO GET OUT OF ORDER.
EASY TO OPERATE.
ANY BOY CAN WORK IT.
HIGH WHEELS AND LIGHT DRAFT.
NO WEIGHT ON HORSES' NECKS.
PERFECTLY BALANCED.

Pole will not raise when gangs are lifted.

Pitch of shovels varied to smallest fraction of an inch, by ratchet adjustment.

Shovels adjustable up and down and sidewise.

Shovels changed instantly by simply turning a set-screw.

The operator has complete guiding control of the entire machine.

It works on pivot axles, and is guided entirely by the foot levers.

The same movement that directs the wheels moves all the shovels.

Gangs can be set in or out on the arch, to suit different width crops.

Gangs can be adjusted in front to correspond with depth of cultivation.

Machine can be guided so as to run to end of row and avoid end hills.

Shovels instantly set any distance apart while the machine is in motion.

It requires no back-breaking, leg-and-body-wearying work to tend a row.

It will operate easier when at work in the field than standing on the floor.

It is built of the best material money can buy, all cast parts being malleable iron.

The shovels can be lifted or dropped without interfering with the progress of the team.

Hills or obstructions can be dodged instantly, so that crooked rows can be easily worked.

It will obey the slightest touch of the rider's foot and go right or left, regardless of the team.

Shovels held to lower side of row by machine power and wheels held at an angle, making it a *perfect hillside worker*.

Shovels instantly set to any desired depth while the machine is in motion, and held to their work by machine power, *not muscle*.

It will cultivate, harrow, cover, ridge, mark rows and dig potatoes with half the labor and more than double the speed of any hand cultivator ever made.



**Try the Kraus and You
Will Have No Other!**

The Kraus Junior



The Junior, built on the same principle as the **Kraus**, is but 3 feet between wheels, adjustable to 3 feet 6 inches. **For working narrow row crops**, such as beans, tobacco, cabbage, potatoes, etc., or for general truck farm-



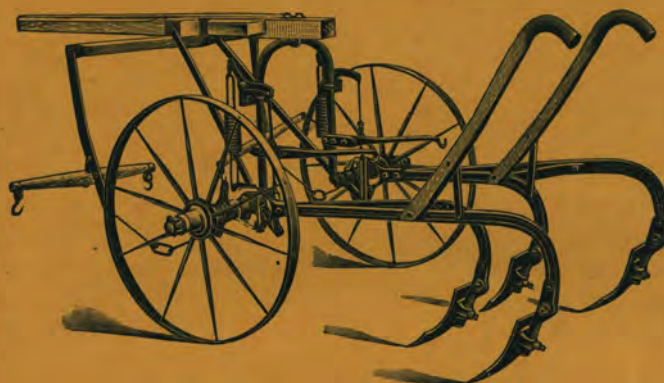
CENTER
ATTACHMENT
FOR KRAUS
JUNIOR.

ing, it has no equal. It can be furnished as a four, six or eight shovel row worker, and possesses all the advantages of the Kraus in work for which it is intended. It can also be used in corn, but being narrower, there is not so much room for the swinging of the gangs. For this reason in wide rows not planted straight, or on steep hillsides, it is not so desirable as the Kraus Standard, for description of which see pages 2 to 5.

Wheel 44 inches in diameter, removable box and 2-inch half oval tire.

Weight complete, with center attachment, 426 pounds.

The Carpo Walking === Cultivator



This is a neat, simple, strong and effective worker. The spring takes the weight of the gangs, making it remarkably easy for the operator to handle, and the direct draft and adjustable hitch which takes the weight off the horses' necks makes it light on the team.

The height of the handles can be adjusted to suit the operator, and the gangs set in or out, to adapt it to the width of the row to be cultivated.

The shovel attachment is the same as that used on the Kraus, permitting the shovels to be



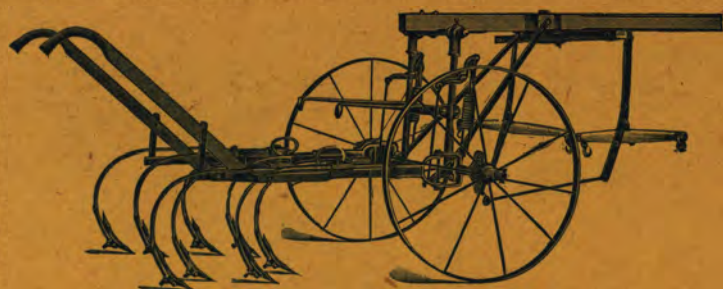
CENTER
ATTACHMENT
FOR CARPO.

Set at Any Pitch and Adjusted Up or Down

It is generally furnished as a pin break, but our regular spring break is adapted to it also. Made with steel beams, four or six, as may be desired, and with either rigid or adjustable arch.

It is 3 feet 8 inches between wheels; weight, 250 pounds.

Carpo Spring Tooth



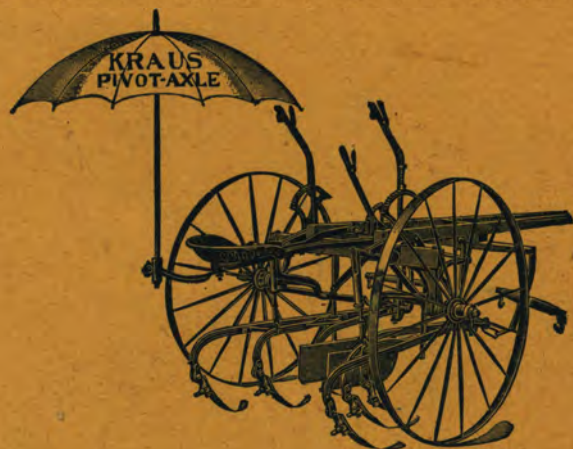
This machine is the same as the *Carpo*, described on the preceding page, except that it has Spring Tooth instead of Shovel Gangs. Four teeth are placed on each side. Shovels are attached to the teeth by set screws, same as on the KrausSpringTooth. Made with either rigid or adjustable arch. As a Walking Cultivator, the *Carpo*, either Shovel or Spring Tooth, cannot be excelled for lightness of draft, ease of work and thorough cultivation.

Weight, 270 pounds.



CENTER
ATTACHMENT
FOR CARPO
SPRING TOOTH.

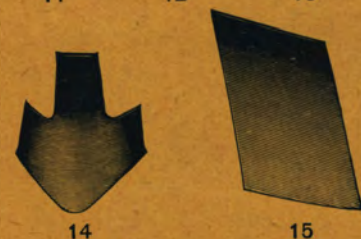
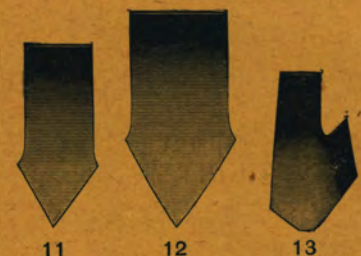
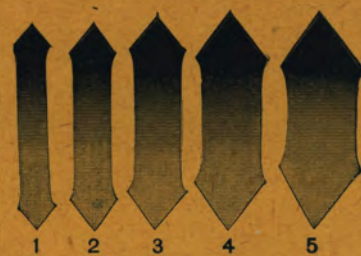
Kraus with Umbrella Equipment



The above cut shows the Kraus equipped with our *Umbrella Attachment*—a 40-inch umbrella with castings to attach it to wagon, road cart, cultivator, mower, binder, or other farm implements. It will earn many times its cost in one season by the comfort it affords the operator.

Shovels with Block and Set-Screw Attachment

- No. 1. 1½ inch double point.
- No. 2. 2 inch double point.
- No. 3. 2½ inch double point.
- No. 4. 3 inch double point.
- No. 5. 3½ inch double point.
- No. 6. 2 inch spring tooth.
- No. 7. 1½ inch single point.
- No. 8. 2 inch single point.
- No. 9. 2½ inch single point.
- No. 10. 3 inch single point.
- No. 11. 3½ inch single point.
- No. 12. 5 inch single point.
- No. 13. Half Thistle point.
- No. 14. Full Thistle point.
- No. 15. Regular Hilling Shovel.
- No. 16. Spring Tooth Hilling Shovel.
- No. 17. Large Hilling Shovel.
- No. 18. Special Hilling Shovel.



Some Good Words for the Kraus



GARLAND, N. Y.
I had a funny experience a few days ago with a man who thought a great deal of the _____ of which he had one on trial. I had a KRAUS with me and asked him to try it. The result was, when I left the _____ was in the fence corner and he owned a KRAUS.
E. W. ROOT.

AGNEW, MICH.
I have the pleasure to state that I have given the KRAUS a trial under quite unfavorable conditions, and am surprised at the good results obtained. For facility of handling the shovels, both vertically or laterally it has no superior and is all that any one could wish. On hillsides it holds to the row with great precision.
H. A. COLLAR.

IRA, N. Y.
I saw one of your KRAUS Junior Cultivators working and think it beats anything I ever saw.
J. L. HARVEY.

HOMER, N. Y.
The KRAUS is getting a strong hold among the farmers in this vicinity. I know of several who bought the _____ and _____ who are sorry now they did not see the KRAUS before buying. I had a field trial on one of the best farms in Cortland County, and entered after the _____ and _____ had first got the field. I sold the KRAUS and got the cash and the other machines were taken away. I was alone and the general agent for the _____ was there to help the local agent. To-day I sold a KRAUS Junior to a man whose son is agent for the _____ and _____ all on account of the combined action of the wheels and shovels at the same time. When the real merits of the KRAUS Junior are known the others are not in it.
L. P. NORTON.

S. W. OSWEGO, N. Y.
The KRAUS is a new thing in this part of the country and everybody about here is watching it and the perfect work it does. It is a surprise to them for they did not believe that a two-horse cultivator could do the work so much better and faster than their one-horse cultivators. I think there will be no more calls for one-horse cultivators in this neighborhood after this.
C. E. WOODWORTH.

CHARLEVOIX, MICH.
I got the KRAUS started in corn and it works to perfection.
ARTHUR BEATTIE.

IMLAY CITY, MICH.
Your KRAUS Cultivator is the boss.
WM. TAYLOR.

PARIS, KY.
The parties to whom I sold the KRAUS Cultivators are more than pleased with them.
JAS. I. WILSON.

BURKET, IND.
The KRAUS Cultivators I sold are well liked and next year I expect to sell double the number.
W. E. DAVIS.

GRAND CHENIERE, LA.
Your KRAUS Cultivator is simply perfect. Easy to operate, light draft and will do any kind of work in any soil.
ARTHUR FRANKLIN.

LAMAR, COLO.
The KRAUS Cultivators I sold have given splendid satisfaction and I think I can do a much larger business with it another year.
W. E. MARTIN.

SCHOFFNERS CORNERS, PA.
We are well pleased with the KRAUS Cultivators received from you.
I. DAVIS.

WAUKON, IOWA.
The KRAUS is a first-class article. The farmers like it and the more they use it the better they like it.
GEO. M. DEAN.

BROOKVILLE, IND.
The parties to whom I sold KRAUS Cultivators are well pleased with them.
JOS. DIETZ.

ROSS, OHIO.
The KRAUS Cultivators I sold give perfect satisfaction.
J. A. BUTTERFIELD.

NEW CONCORD, OHIO.
I can't raise corn successfully without your KRAUS Cultivator which I consider the best in the world.
J. R. RHODES.

WADESVILLE, IND.
The KRAUS gives the best of satisfaction and I think will take the lead next year.
C. KOLB.

NORTH MANCHESTER, IND.
We have had a trial with the KRAUS and the _____ and, of course, came out victorious selling our plow and having the _____ returned to our Competitor. We adjusted the KRAUS ourselves and have ordered two more from the transfer house.
A. G. LAUTZENHISER & CO.

DEPAUW, IND.
I want the agency for the KRAUS at this place, as it seems to be the only cultivator people want. I have a large ware-room and can use them successfully.
J. F. BIRD.

KIPTON, OHIO.
Please ship me two more KRAUS immediately. I had a trial with the _____ to-day and beat it in all ways, making sale over them.
WILLARD GRANGER.

SPRAGUES MILL, MAINE.
The KRAUS Junior Cultivator I purchased last spring works admirably.
SAMUEL DAGGETT.

HARSHASVILLE, OHIO.
The KRAUS beats any cultivator I ever saw both for work and ease for man. There are several other kinds of cultivators in this neighborhood, but all have proved a failure. The KRAUS can't be beat.
ROSCOE F. LEACH.

PEMBERVILLE, OHIO.
We were out with the _____, _____ and _____, and we sold the KRAUS over all of them at an advance price.
HOBART, BOWLUS & CO.

BLOOMDALE, OHIO.
Ship us another machine at once. We can't sell anything else since we got the KRAUS.
ROSENDALE & REDFERN.

JORDAN, N. Y.
If I could use, sell or give away two _____ Cultivators, I could dispose of two more KRAUS this season. Another season your machines will have the field on their merits.
JAS. A. CLEMENTS.

ALEXANDER, N. Y.
The KRAUS Junior Cultivator bought of you last spring is all that is claimed for it. It is a success in corn and beans and if properly handled will save the cost of the cultivator in one season. I prefer it to any cultivator I have ever used and do not think any farmer can afford to do without one.
B. L. MILLER.

BATAVIA, N. Y.

Having used the KRAUS Junior Cultivator for the past two years in corn, potatoes and cabbage, and found it a very practical machine, easy to adjust and operate, we would recommend it to all who desire a first-class machine.

C. T. & W. F. PRATT.

BATAVIA, N. Y.

I have used one of your KRAUS Cultivators for three years. Having tried several others, I regard the KRAUS superior to them all, especially for beans and potatoes.

J. D. FISHER.

SPILLVILLE, IOWA.

I have sold a number of KRAUS Cultivators and they give the best satisfaction. It is a dandy and will take the lead here.

F. J. VALENTA.

HAYT'S CORNERS, N. Y.

I sold two KRAUS June 2d and four on the 3rd which I ordered by wire from the transfer house. I expect to sell five or six more this week. Every farmer who sees it wants one. No trouble at all to sell it.

O. B. YARNALL.

FAIRFIELD, VA.

I received the KRAUS Cultivator all right and am well pleased with its work.

D. B. FOLTZ.

UPTON, PA.

The KRAUS is a new plow in this section, but farmers who have tried them say they are the best and most perfect riding cultivators they ever saw.

J. I. RHODES.

GARLAND, N. Y.

Yesterday I sent the KRAUS Junior to be used in corn with two others. The owners of the other two were there to operate them, but ours was all alone. I went up this morning and sold three, all for cash.

E. W. ROOT.

TAMAH, OHIO.

Your KRAUS Cultivator is all right. The party who got it is well pleased with it and a number of his neighbors have seen it work and like it. I think there will be a good sale for them another year.

WM. A. SEIBERT.

HOOKSTOWN, PA.

Your KRAUS Cultivators put out by us have given entire satisfaction and will be easy to sell next year. There were but two other machines sold in our territory this season and they were sold at cost.

A. J. GREGORY & SONS.

GARDS POINT, ILL.

The KRAUS is the best Riding Cultivator I ever used. It is very easy to guide and a boy that can drive a team can handle it.

ADAM DEISHER.

POTSDAM, MO.

The KRAUS Sulky Cultivator we bought of you this Spring has given perfect satisfaction and we cannot recommend it too highly.

WM. TOEDTMAN,
CHAS. LALK.

DECATUR, IND.

I purchased a KRAUS Cultivator from your agents, Ashbaucher & Bell, and am satisfied it made me a hundred bushels more corn and I would not take two hundred dollars for it if I could not get another.

ALBERT BRACHT.

AMSTERDAM, N. Y.

Enclosed find settlement for the sample KRAUS Junior Cultivator. The party who purchased it thinks it works to perfection as do all who saw it work. I will have a large sale of them next year. An introduction is all that is necessary. There is no trouble in selling.

L. H. MERRY.

PLEASANT HILL, MD.

The KRAUS Cultivator I purchased from you is first-class.

JAS. S. SCARBOROUGH.

RENROCK, NOBLE CO., O.

My ground is quite rough and hilly, yet I found that I could cultivate my corn easier with the KRAUS than any other cultivator I ever tried. In construction it is simple, strong and convenient. I shall take pleasure in recommending the KRAUS to my friends, feeling that I can conscientiously do so.

D. J. GREEN.

BROCKPORT, N. Y.

As I did not succeed in making a contract with you, I purchased a few of your KRAUS Junior Cultivators from another party and will say they are far superior to any other sold in this section and could I have got more of them in time, I could have sold eight more than I did. Hope to secure the agency here next season as there will be a large number of them sold here if the trade is pushed.

H. G. UDELL.

BATAVIA, N. Y.

I am very glad to say that the two KRAUS Junior Cultivators come the nearest being perfect tools of any implement on our place. In fact they are the greatest labor saving machines I have ever used.

NELSON BOGUE.

CLINTON, MISS.

I received the KRAUS Cultivator. Had no trouble to put it up, and allow me to say it is the finest corn cultivator that has yet tilled the American soil.

C. J. JOHNSTON.

LATER—I take pleasure in recommending to anyone the KRAUS Cultivator as one that has no equal that I have ever seen. I am working my cotton with it now and it is beautifully done, and any farmer who can see it work will not fail to buy, assuring himself that it is a great money saver.

WEST MILTON, OHIO.

The KRAUS Cultivators put out by us are giving excellent satisfaction. Every one staid out, which is something unusual here for something as new to this section as the KRAUS.

A. PFEIFER & SON.

EAST LIBERTY, OHIO.

We have been having very good success with the KRAUS Cultivator, better than we expected as it is our first year in the Agricultural Implement business. It is worth more money than any other plow I ever saw working. We have sold but one other riding plow and that was our sample ———. We do not like it at all and have sold a KRAUS to nearly every one who wanted a cultivator.

S. G. & L. B. CHAMBERLAIN.

BATAVIA, N. Y.

We write you to say that your KRAUS Junior Cultivator is doing fine work. We never sold a tool for farm work that stood so high. Farmers admit that it is the best working cultivator in the market. One customer thought that the ——— would do better work but when we showed him the KRAUS in the field in actual work he was perfectly satisfied that the KRAUS is far ahead.

H. O. BOSTWICK & SON,
By H. O. BOSTWICK.

PIEDMONT, OHIO.

You have the best riding cultivator I know of.

J. R. HIBBS.

LACEY, MICH.

Your letter to hand. In regard to Mr. Pettingill, I will see him at once and do my best to sell him a KRAUS, the best cultivator on earth.

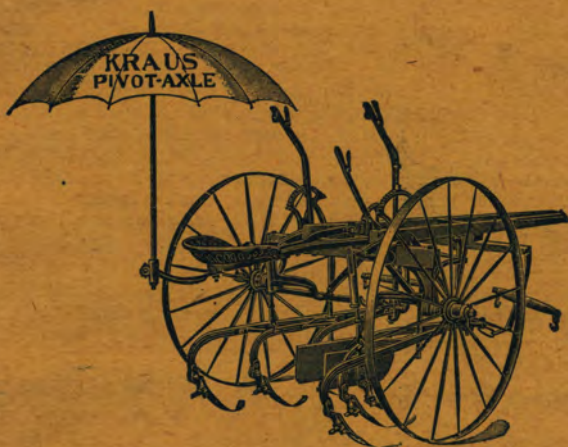
C. E. NICKERSON.

YOUNGSTOWN, N. Y.

The KRAUS Junior Cultivator came in good time and is giving good satisfaction. My customer told me to-day that if he had got it several years ago he would have saved the price of it several times.

T. O. WILSON & SON.

THE KRAUS
PIVOT-AXLE
SULKY
CULTIVATOR



OUR MACHINES
ARE SOLD ONLY
THROUGH DEAL-
ERS & TO EACH
ONE OF WHOM
IS ASSIGNED A
CERTAIN AMOUNT
OF TERRITORY