



You've made a wise choice, Mr. Farmer:

Your selection of the SURGE Fencer was a wise choice. SURGE electric fencing is going to be one of the very best investments you ever made, for your SURGE Fencer will give you ALL the benefits of electric fencing.

Possibly you did pay a little more for your SURGE Fencer, but remember, you have a fencer that works. The Babson guaranty of dependability behind every SURGE Fencer means you can be sure your electric fence is going to be safe . . . going to be effective.

Electric Fencing is really very simple. If you use horse sense and a little care, you'll get every advantage electric fencing has to offer. A few seasons of use will make you an expert in the matter of practical electric fencing. You can get as much out of electric fencing as anybody else, for you, alone, know all the characteristics and needs of YOUR farm.

The first step towards being "the man who knows electric fencing" in your neighborhood is to spend an hour going carefully over this SURGE Fencing Handbook and the SURGE Fencer Catalog.

Keep this book after your fence is up. You may need a reminder on some particular point, and then if someone else uses your SURGE Fencer, they can read this book and do things right.

If there's anything you need to know about SURGE Fencing our handbook doesn't tell you, drop us a line. We're anxious to see that every owner gets all the service and convenience that a SURGE Fencer can really give.

Sincerely yours,

BABSON BROS. CO. Chicago.

BABSON BROS. CO. Chicago

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Here's how you PKOHII with Surge Electric Fencing

When you bought your SURGE Fencer you bought more than just a fine piece of electrical equipment. You bought a better way of farming. From now on, the money you invest in your farm and the sweat you put into your work is going to bring you a better return.

We make no claim that a SURGE Electric Fence is any better than a number of good permanent fences when it comes to controlling stock. The real reason for the rapidly increasing use of electric fencing is that it enables you to have a fence where you want it and when you want it at a price that you

can afford to pay. We don't like to use the word "temporary" in connection with electric fencing because a good electric fence is not especially more temporary than any other kind. "Portable" is a better word. If you want a field fenced tomorrow, you can fence it tomorrow. When you no longer need a fence around that field you can take it down quickly and easily and put it somewhere else or store it away until you need it again.

The next time you go into a store to buy fence wire, get one roll of wire instead of three. You can leave those other two rolls there, because one SURGE wire will hold most of your stock and will be sufficient for the temporary fencing you'll want to do beginning right now.

It would be silly to tear down all of the good fence you have already, but it would certainly be a good idea to add a SURGE charged wire to that fence. Your stubbornest critter will learn to leave fence alone then. Protection of your present fences is just one of the many ways to added profit through SURGE

One fence post doesn't cost much, but by the time a farm is completely fenced, you



have paid out a sizeable sum. A few cents saved on each post does add up to PROFIT for you.

We're not advocating sticks for posts, but we do say that the posts and stakes you can use for SURGE Fencing are lighter and cost a good deal less than regular heavy posts. You can use odd lengths

that would never do on old style fences, and you can use slender stakes that don't need to hold by brute strength. You use fewer, cheaper posts and yet have more fence in the long run . . . PROFIT again.

A farmer's time is worth money. When you can set up a fence in an hour and a half that ordinarily would take more than half a day, you're going to do a lot of the important work that may have been going undone for a long time.

Putting up heavy temporary fence that will hold is too expensive and too much trouble for short-time use. With the SURGE Fencer you don't need to skip temporary fencing. It's such a quick and simple matter you just naturally do get around to having its advantages.

Current cost with SURGE Fencing isn't a matter to worry you. Even though your Fencer runs continually, it will add less than ten cents a month to your light bill.

In all fairness, there's another point. What you get from electric fencing depends in the end on YOU. If you set up one electric fence and never another, you won't show as much profit as you really could.

Don't stop with the pasture fence. Use your SURGE Fencer for that special lane you've been needing . . . around that haystack the cows won't leave alone . . . along the ditches and in the bull pen. Use it on ALL of your stock . . . horses and cows . . . pigs and sheep. Do USE your SURGE Fencer. That's the way to PROFIT.

Install Your SURGE Fencer This right Way...



Modern machinery is marvelous stuff, but the time will never come when good

old horse sense with that machinery isn't important. You could probably get most any fencer hung up and working, but there are a few things we'd like to emphasize . . . just to be sure that your SURGE Fencer gives you the maximum satisfaction it's so beautifully capable of giving.

LOCATE it for CONVENIENCE

After all, you're going to want to use **all** the fencing features built into your SURGE Fencer. You'll want to be able to see that indicator lamp flashing steadily as you go about. It tells you there's current on your fence.

Then you'll want your fencer where you can adjust the voltage to meet varying weather conditions. You'll want it handy to check

your fence circuits for shorts.

So pick out a good convenient spot either indoors or outdoors, for the SURGE Fencer is weatherproof. However, like all fine electrical equipment, a fencer works better if it's in a clean, dry place. Some SURGE Fencer owners play doubly safe by installing their unit in the kitchen or on the back porch. It can be seen easily there, and you know for sure, the atmosphere is more nearly free of dust and dampness. Many SURGE Fencers are installed in barns and milkhouses, but it's beginning to look as if the kitchen is a better location for a fencer.

Hang it level, using the top screw and then the lower ones, fastening it securely. Remember, if your unit is not grounded while running, a slight shock may be gotten in handling, depending on damp hands or a wet floor.

Don't Monkey with a Makeshift GROUND

The ground is half of your fence. Current goes from the fence, through any animal that

touches the wire, and through the ground. A good ground is absolutely

essential.

A 34" galvanized pipe eight feet long (or a 1/2" copper rod the same length) may be something you'll have to go to some trouble to get right away, but **get** one or the other.

Drive it into the ground . . . all the way in . . . leaving just enough sticking out to fasten on the ground clamp TIGHTLY. Connect it with heavily insulated No. 12 or larger wire—NOT just any small wire that's lying around.

No, Mister, that waterpipe running along your stanchions is **not** a good ground. Perhaps a motor or two and a radio is grounded to it already. If for some reason the current should back up into your fencer, there'd be trouble . . . plenty of it. And then again, that pipe may run across or parallel to a power circuit . . . more trouble you can avoid. If the joints are insulated with white lead, there's more trouble possible. Just to be on the safe side, avoid grounding your fencer to it.

Connect Your Fence

The SURGE Fenc-Tap is one of the attractive time savers on your Model A Fencer, for it permits you to branch your fences right at the fencer.

Connect one lead to a group of fields on one side of your farm, and the other two to different circuits. When there is a short and the Indicator Lamp stops flashing, you can test each circuit separately. Leads are color-coded to identify each circuit.

Wires that lead out from your fencer should be insulated and placed high enough so that you won't be running into them.

Avoid stringing lead-out wires through trees or shrubs.

Insulate all wires passing through walls or over joists with porcelain tubes.

Lightning Arresters

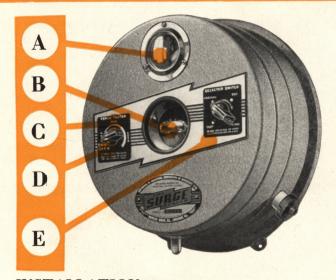
Lightning arresters are built right into all Surge Fencers. They are carefully built and precision adjusted for maximum fencing efficiency as well as ample protection.

Operating Your Surge Fencer

Your SURGE Fencer was designed to last for years, to be safe and effective, yet at the same time simple to operate. Read the instructions below for the model you have.

MODEL A—HI-LINE

MODEL A.C.—HI-LINE





INSTALLATION Fasten fencer securely with indicator lamp about eye level. Put a screw in the wall and hang fencer by means of slotted bracket on top of outer flange. Be sure bracket engages screw head. The fencer may be shifted from right to left until the mercury in the tube of the mercury switch (B) rolls freely from one end to other when unit is plugged in and Fence Tester switch as at "On." Fasten fencer securely by other holes.

INDICATOR LAMP: A

Indicator Lamp (A) at top of fencer flashes when fencer is working properly. If it does not flash it warns you that:

Switch or power is off . . . or Fence is badly shorted. Check for shorts on each fence circuit. . .

Indicator Lamp has burned out. This special 2-watt neon lamp may be easily replaced from the front of fencer.

FENCE TESTER: C

To test fence, set Selector Switch (E) at "Test" and turn Fence Tester knob (C) to right until lamp fades out. Stop at point where lamp fails to light or flashes occasionally. Pointer then shows true condition of fence. Return pointer to "ON" after testing

"OFF" and "ON" SWITCH: C

This switch is part of the Fence Tester. Unless testing, pointer should always be at "ON" or "OFF"

SELECTOR SWITCH: E

Selector Switch (E) on right side of unit is to regulate force of shock. Ordinarily it is set at "Normal" or "Dry." During the late dry summer when the soil is very dry and dusty, Selector Switch should be set at "Very Dry." When your fence tests "Fair" or "Weak," you can turn the voltage up to "Dry" or "Very Dry," increasing effectiveness, but this does not remedy the cause of your trouble. Check fence layout for shorts due to leaky insulators and weeds.

INSTALLATION Install in clean, dry place out of way of moving animals or equipment and protected from rain and sun. Put screw in wall and hang fencer, being sure that screw head engages in slotted bracket in fencer back. Shift fencer from right to left until mercury in glass tube rolls freely from one end to the other when unit is plugged in. Then fasten fencer securely with screws in both holes of bottom bracket.

Warning

Remember! . . . that your ground is one HALF your electric fence. The best controller built can NEVER provide you with real stock control until you have a perfect ground.

Read instructions carefully. Use a SEPARATE ground for your Surge Fencer and go down 8 feet with it.

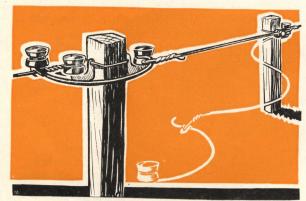
Never hook the Surge Fencer to any ground but its own . . . and make sure it is a good one!

nappened because wires for one purpose were crossed with fencer wires. Save yourself worry and danger by keeping your fencer installed to itself. You won't have any trouble if you know what each wire is for . . . where it has come from and where it is going.

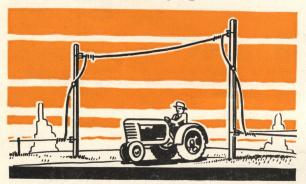
Never connect your hi-line fencer to any current other than 110 Volts A.C. A 220 Volt current would mean an illegal current of 50 milliamperes on your fence, and it would soon burn out your fencer. Connect your hi-line fencer to 110 Volts (60-cycle) A.C. ONLY.

Here's How They Do It ...

We can't tell you all the ways an electric fence can be used, but we can make a few suggestions that will be practical. The diagram below just begins to show what an electric fence can do. With a little healthy imagination on your part, you can see where electric fences would do the most good on your farm.



Gates are made with one wire, using strain insulators and spring wire.



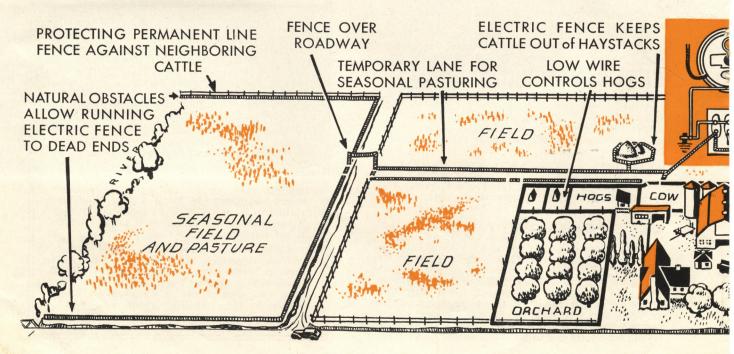
Tall posts carry fence wire over road.

Crossing a road isn't a difficult matter. Our drawing shows two high posts taking the wire across. Other ways would be to take the wire across through a culvert or in a lead cable buried under the road, but to do so is inviting shorts from dampness and close contact with the soil.

You will notice permanent line fences, as well as temporary fences for pasture rotation and management. The bull pen has the additional protection of a charged wire, which should mean you won't have to make a weekly repair trip to that enclosure.

There aren't any set rules as to the length of your electric fence. Just remember that a SURGE Fencer will handle all the fences that are necessary on a 500-acre farm.

An electric fence around a haystack is mighty convenient, and as long as you have a SURGE Fencer, you might as well use it that way. Our drawing shows an electric fence along a creek. If you have followed a ditch or creek with ordinary fence you'll appreciate how easily an electric fence can take care of every turn and twist. This means that you will be using every bit of pasture too, taking advantage of feeding you ordinarily would skip.





Splice fence wire this way.

Crossing a stream or gulley is a tough job with ordinary fences.

They're hard to set up, and when a flood comes with a lot of mud and brush, there's a fence down. The weight of the flood tears it out, and in a few hours all your stock may be outside.

With a SURGE fence you can do much better. You cross with the regular wire high over the gulley or creek. Another one hanging down as our diagram shows, weighted but still swinging free, gives you a stock-holding fence that won't go out in a flood. When the water comes rushing during a storm, the lower wire will swing back and forth with obstructions instead of washing out like ordinary fence. Your fence will be shorted, sure; but when the water's down, you'll still have a fence, and your stock will still be in where they belong. With any arrangement like this, corner insulators should always be used at points of tension.

One of the beauties of electric fencing is the ease of following a contour rise or drop. Use a couple of higher posts, and an extra piece of wire or two, and your stock will be held back. Taking a fence up or down sudden slopes with old style fencing is a great deal harder and takes more time and expense.

Corner posts on electric fences have to be set a little better than line posts, but they certainly won't need the heavy reinforcement that ordinary fences take. Gates are made with a single wire and an insulated handle. You won't find a more inexpensive gate than that, and it does hold the stock.

Posts should be spaced about three rods apart. Set them closer if the ground is rough, or if you're going to cross a ravine.

Remember, corner insulators should be larger and heavier because they stand the strain of the wire. You don't have to use a wire stretcher, but it's a good idea to stretch the wire so that it doesn't sag. Don't forget that rust is an insulator. Rusty wire simply will not do for electric fencing.

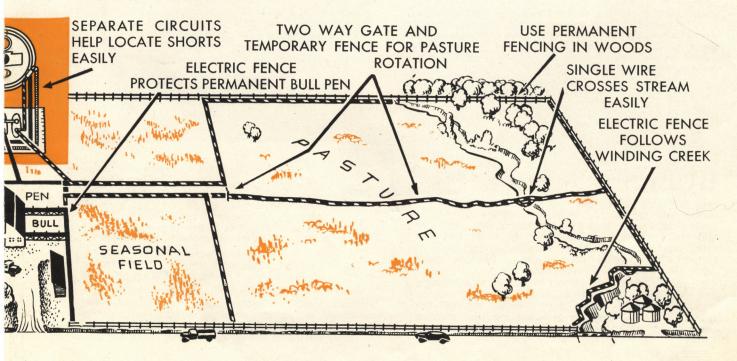
It takes a little time and thought to work out an arrangement like we have shown here. Once such a set-up is in operation, your trouble is rewarded a hundred-fold in saved time, money and worry. A little extra care now means so much more PROFIT in the seasons to come!



This kind of fence doesn't wash out.



Simplifies fencing over rough terrain.



Important

Many farmers neglect the special training of their stock, but we have found that the ones who TRAIN their stock to the electric fence are invariably SATISFIED.

Cattle seem to learn respect for the electric fence about as quickly as any stock. More patience is required with pigs and sheep, but there is no reason in the world for any of your stock not learning to stay away from your SURGE Fence wire.

Training is a simple matter. String a wire connected to the fencer across the barnyard or the corner of a field, and then tempt the stock with some choice feed placed in front of the fence and extending a short distance beyond. DO NOT DRIVE THE STOCK INTO THE FENCE. The best results come by letting them find out for themselves gradually what is in that harmless looking wire.

Frisky heifers sometimes give a little trouble, so don't let them get excited and charge the fence before they have gotten a sting. Some SURGE owners let their heif-

ers in with the older cows to find out about the electric fence.

There's a good chance that if you just turn your animals into a field they will learn about the electric fence without any training, but we're certain that you will get better results if you do train your stock.

Remember This about Electric Fencing

"Weeds along the fences scatter seeds across the fields". . . and short your fence.

One of the big advantages of the increased use of electric fencing is in the control of weeds. It is easy to move the fence, work the land and smother out the weeds. A weed hatchery along the fence rows can cause many extra weeks of work in the fields every summer. We appreciate just how hard it is for a man to tear down a good fence, but it is something that is being done more and more.

At the same time, electric fencing does make it very necessary to keep weeds

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weeds . . . so will any other electric fence that is operating ... BUT ... that is a wholly wrong and uneconomical way to kill the weeds under your fence because you are using up the current that you have put out

Certainly The Surge Fencer will kill some

on the wire to stop the stock. A leaky fence is just as bad as a leaky pail, and a fence that is busy killing weeds is always leaking.

A one wire electric fence will USUALLY hold the most vicious bull, but we are not

telling you to put just this one wire by itself between you and a bull. When a bull gets mad and really starts to going places, he won't pay any attention to a shock, jab or blow. You simply have to hold him by brute force . . . some kind of husky fence that he just can't push down.

A bull will learn to respect a charged wire though, and you won't have to do much repairing of the regular enclosure. If he gets a shock through the ring in his nose, then he gets a sting that reaches down to his roots. He REALLY respects the fence then.



Among the unusual things that come up with electric fencing, we heard about the bull who learned he couldn't get a shock through his horns. With typical bull logic

he decided the next step was to tear the electric fence down, and this he began to do with his horns.

His owner was smarter though. He put a chain on the bull's head. The next time the bull tried to use his horns on the wire, he got a SHOCK. He was willing to leave it alone after that.

Which reminds us, many Surge Owners have cured animals of trying to get over an electric fence by hanging a chain around their necks. That direct contact with the fence really socks them!

HOGS

The SURGE Fencer is valuable in special

feeding arrangements. Many farmers use it to keep their brood sows away from

the feed only the little pigs are supposed to have. A wire is erected around the feeding platform that is high enough for the small animals to walk under. The sows get a shock when they try, and they learn to stay away from the smaller pigs' more expensive feed. When you have kept a sow away from something she wants to eat, you have really done something!

Some farmers use the electric fence through or around their corn fields for hogging down the corn

or getting the ears left by the pickers.

Among the many uses of the electric fence, we recently heard of one farmer who trained his hogs to leave chickens alone. He wired a dead chicken to his electric fence. The first hog that bothered it got a mouthful of feathers and amperes that sent him

squealing. The other pigs also got the idea that chickens should be left alone.

Smaller pigs give the most trouble. They start under the wire, get a shock and when they jump, go on through the fence. Yet, if the wire's too low, there is shorting. One solution is to run an ordinary wire close to the ground. It forces the pigs to get a good contact with the charged wire when they try to crawl between the two.

The training with hogs should be careful. A few ears of corn wired to the fence will teach them to stay away, and once they get a good shock, they're held as effectively by electric fence as any other farm

animal.



SHEEP and GOATS

Sheep and goats can be held by your Surge

Fencer . . . IF . . . you practice patient and careful training. The best time for sheep to learn about the electric fence is after they have been shorn or their necks have been clipped, so that the wire can contact the skin instead of a heavy layer of wool.

Sheep are especially sensitive to shock around the ears, face and nose, so if you can tempt them to expose themselves that way, your job is that much easier. Ears of corn wired to the fence or small cans of damp oats attached to the charged wire will furnish the bait.

Sheep and goats will need two wires . . . one about 12 or 14 inches from the ground and the other about 20 inches from the ground.

Many times wild animals will learn to respect an electric fence. We have heard of elk, rabbits and deer learning to stay away from a charged wire, but that's something you'll have to find out about yourself. Deer may come in a running jump that doesn't give a chance for a shock. If you can tempt their curiosity by getting them to walk up to the fence to examine some bait or bright bit of metal, there is a good chance they will find what electricity is all about and keep out of your fields.

Smooth or Barbed Wire?

There is no one right answer. About all we can say is that you'll get more out of Surge Fencing by using some of both.

Smooth wire is so much easier to handle . . . and cheaper . . . that the man who uses it will almost certainly use his electric fence more. It is much easier to use smooth wire in temporary fencing, and you'll probably move your fences more often and dislike the job less.

It does take a little more care in the training of the stock . . . especially the older animals. If you already have considerable barbed wire available that isn't rusty, you'll want to use that, but we can say that smooth wire is easier to handle, more economical and works as effectively in holding stock as barbed wire. The smooth wire carries the current a little better, so there's probably a stronger shock from it than from barbed wire. Smooth wire lessens the chance of cuts on your animals and that's something very important to consider too.

No Need for Radio Interference

It took us some time to develop a fencer that woudn't give annoying static in a farmer's radio and that of his neighbors. Electricity is sometimes unpredictable, and things came up we hadn't expected. We finally built the fencer so that installed right it does not give radio interference.

If you do have trouble with radio interference, there are several things that may be causing it, and a careful check on your fence set-up will probably correct it. Here are things to look for:

A defective lightning arrester is the most common cause of interference. It can be readily detected by disconnecting the fence wire from it. Better try this

Poor insulation of the fence . . . look for trouble here if you have any old, cracked or dirty insulators installed near your buildings.

Improper grounding of either the fencer or the

radio.

Radio aerial directly over, parallel to or near fencer

Improper location of fencer near electric junction boxes will invariably cause trouble if the fencer leadout wire is run parallel or close to light or power

If you check all these points carefully, and still have radio interference, consult your local Babson representative or drop us a line.

A Good Electric Fence Is Easy to Build

You won't find many chores that are easier than setting up an electric fence. Instead of digging deep postholes and lugging heavy posts around, you simply drive light stakes or steel posts into the ground. Instead of grunting under the load of a big bale of wire, you carry only one roll of wire.

We don't say, do a shoddy job of fencing, but we do say that a good electric fence is much simpler and easier to build than ordinary fence.

LINE FENCING

In some states an electric fence cannot be used as a line fence, but in others, it can be and is used widely. Many of our users report that the SURGE Fencer is a great help in keeping their cows away from the neighbor's. Telling us about his fencer, William H. Borden, Madison, Wisconsin, said, "It kept our Bangs free herd off the line fence and away from the neighbors' cattle."

The most popular form of line fence with SURGE users seems to be the added SURGE wire to the permanent plain fence. Where the electric fence is used by itself on the property line, both regular posts and steel posts are being used.

TEMPORARY FENCING

Your greatest use of the SURGE Fencer will probably come with temporary fencing. Pasture management and rotation call for fences that can be set up quickly . . . and torn down just as quickly after a short period of use.

How long it will take to set up a fence depends on each farm and each farmer. Carl R. Price of Onalaska, Wisconsin, says, "I can put up 80 rods of fence in about one and a half hours. That includes unrolling the wire, driving the posts, putting one brace on each end, stretching and fastening wire."

On every farm it's a quick matter to move temporary fencing. You simply detach the wires from the post insulators, pile them on a wagon or truck and move to the new location. Set your posts in as you drive along, and then go back and attach the wires to the insulators. Connect it with a fence that's already in operation, and you're ready to turn your stock into your new enclosure.

It's easy to divide pasture with a SURGE Fencer. Single wires for each fence will keep stock just where you want them. When feeding in one section is eaten down far enough, you turn your cows, for instance, into a different section, giving the previous one a chance to grow up again.

PROTECTION FOR PERMANENT FENCING

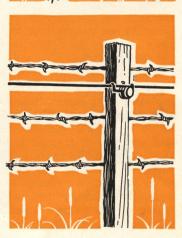
Any fence is improved by the addition of a charged wire, according to Earl B. Armstrong, Franklin, New York. He has added a SURGE wire to his old style fences for the added protection it gives.

Build the toughest, most expensive fence you can get, and somehow, sooner or later, it has to be repaired. Hogs root under it, or horses reach over it, or breachy cows bother it until finally it gives away.

It doesn't take you very long to take a bagful of insulators and a roll of wire and put up a SURGE Fencer wire on the inside of each post. Keeping your stock away from your old fences will pay in both time and money.





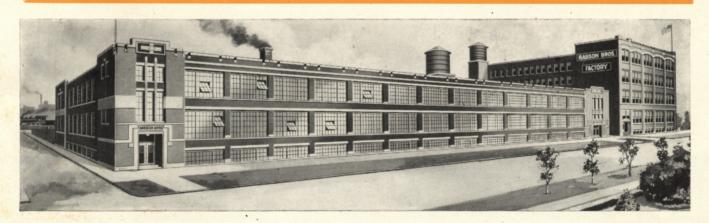


Use this Convenient FENCING HANDBOOK INDEX

For your convenience we have made up an index on various fencing facts. Under single headings you will find listed all you need to know about installing your fencer, operating it and planning your fences. If the information you want is not listed here, see your local Babson Dealer or write to us.

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The Babson Nameplate on Any Piece of Dairy Farm Equipment Is the Best Guaranty of DEPENDABILITY, RELIABILITY... and PERFORMANCE that Your Money Can Buy.