SOLDERING KINKS

ILLUSTRATED

COMPLETE INSTRUCTIONS AND PRACTICAL SOLDERING SUGGESTIONS FROM USERS OF

NOKORODE

"THE BEST SOLDERING PASTE IN THE WORLD"

25¢

Published by

THE M.W. DUNTON CO.
PROVIDENCE R.I., U.S.A.

INDEX

SOLDERING KINKS

PUBLISHED BY

The M. W. Dunton Company

150-152 Niagara Street

PROVIDENCE, RHODE ISLAND

SECOND EDITION

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DEDICATED TO "THE BOYS WHO SOLDER," PUBLISHED WITH THE VIEW TO HELP THE "OTHER FELLOW."

This book is written with the desire to help all who may be in any way interested in soldering, and is the outcome of the shop notes "Soldering Kinks" compiled with the assistance of valuable suggestions furnished by men of experience all over the country.

It explains all processes in the simplest way so that a beginner can understand every step taken, and at the same time suggest methods to improve and increase the factory output of those who make their living by soldering, or who find the knowledge useful or economical about the house, car, motor boat, etc.

"Soldering Kinks" published in the form of posters so that they may be tacked over the work bench for the benefit of the "Boys who Solder," many thousands of which have been issued semi-annually, have endeavored to tell new and improved methods of using solder, never before published, ideas originating in the minds and shop methods of men of experience in all kinds of work, to which contributors we are most gratefully indebted.

"Soldering Kinks" in poster form containing from 20 to 25 of the latest suggestions for soldering will be sent to those interested on receipt of 2 cents in stamps to pay for cost of postage, and labor of mailing.

This book of 32 pages containing 69 suggestions will be mailed on receipt of 25 cents in stamps.

Do not confuse the poster with the book.

THE M. W. DUNTON CO.

The Art of Soldering

Soldering is an art, but the art of soldering is a very simple one.

There are but four essential principles, and when these are followed, anyone can, after a little practice, do as good work as the most experienced workman.

The four principles of soldering are as follows:

(1) The soldering iron must be kept clean and well tinned.

(2) A good soldering flux must be used.

(3) The metals to be soldered must be thoroughly cleaned, before the joint is made.

(4) The joint must be heated above the melting point of the solder.

Soldering requires heat.

You may use a gas stove, coal stove, or a gasoline torch. Any of these will work satisfactorily.

Soldering irons cannot be heated properly in the yellow or illuminating flame of the gas because it smokes the soldering iron, and also because it is not hot enough.

It needs a blue flame, the same as given off by a gas stove, but a good clean coal fire will do.

To heat the soldering iron, slip the pointed end down through the hole in the center of the burner of an ordinary gas stove so that the blue flame comes in contact with the large end of the iron.

This method of heating does not burn the solder from the iron so quickly and the iron keeps hot longer.

To heat the iron in the ordinary cook stove, be sure to have a clean coal fire. Put the iron through the broiling door in such a way that the tin on the iron is protected from the flame by the lining of the stove. This leaves only the large end of the iron exposed to the fire. This method will save burning off the tinning. If you have no gas stove or convenient method of heating your iron, a gasoline torch would be ideal.

To tell when the soldering iron is hot enough, try it by putting the solder to the point. If the solder melts as soon as it touches the iron it is hot enough and ready to use. If the iron is overheated the tin-

ning will be burned off and it must be retinned, or if the end of the iron becomes black and the black will not wipe off the iron needs retinning.

To retin a soldering iron if the tinning gets burned off, rub it on a clean brick, sand paper, emery cloth, or file to brighten the surfaces, and if it is badly pitted file it smooth.

Then heat it under any of the methods suggested and put on a suitable soldering flux, rubbing on the solder, at the same time going over all four sides of the iron while it is still hot, and wipe them on an old cloth.

This makes the soldering point of the iron look bright and shiny, the color of new tin.

Your soldering iron must be kept in this condition if you wish to do good work, and the cleaner and better the iron is kept, the better the class of work you will be able to do.

The metals to be soldered together must be thoroughly cleaned by scraping with a piece of emery cloth or a file.

With the iron properly heated and the metals ready to be joined, the next step and the most essential one in the entire operation is the use of the right kind of a soldering flux.

For ordinary work this flux should be in the form of a paste, which can be applied with a stick or a brush, or the end of the solder, and apply it to the parts to be soldered.

In selecting your paste be sure you get one that is non-corrosive, that will solder all metals, that is thoroughly made, so that each particle that you pick up on the head of a pin has all the elements of the flux; one that is being made carefully all the time.

There are fluxes on the market that are made so carelessly that they are one preparation one day and something different the next.

Be sure to buy a flux that you can rely upon.

If it can be done the best results will be obtained by holding the hot soldering iron underneath the parts to be soldered, and remember both sides of the joint to be soldered must be heated alike to make a good joint.

The solder is then held on the top, and as the heat rises it melts the flux, which should flow to every part of the joint, and later the solder melts and flows as far as the flux, making a perfect joint.

For this reason a flux that will flow a longer distance is the best to use on most classes of work.

Where it is impossible to apply the heat from below, good work can be obtained by keeping the iron on top, provided you are careful to get the parts to be soldered hotter than the melting point of the solder.

When the solder has run freely take your soldering iron away and let the parts soldered get cold.

If the joint is given a slight tap while the solder is still hot the surplus will be shaken off and a clean-looking joint will be the result, but in doing this be careful not to separate the joint.

If the solder looks bunchy, while it is still warm take a cloth with a little of the flux on it and rub it over quickly. This will make a clean, smooth joint.

Practice makes perfect.

You can learn to solder as well as anyone.

If the first job is not perfect, do not get discouraged. You are bound to get good results eventually.

I show below the difference between a good joint and a poor one.

Good Joint *Poor Joint*

There are three troubles with the poor joint shown above.

(1) Wires should be cleaned by scraping before the joint is made.

(2) A good soldering flux should be put on to the top of the joint before the heat is applied.

(3) The joint is not hot enough; the soldering iron should have been held underneath to let the heat rise.

HOW TO SOLDER A HOLE IN A TIN PAN.

While the soldering iron is heating, clean the hole in the pan, with emery cloth enclosed, and rub a little NOKORODE around the hole on the inside of the pan; hold the point of the soldering iron against the hole on the outside of the pan, place solder on inside where the Nokorode is. When the pan is hot enough the solder will melt and cover the hole. If the hole is too large to solder, put on a patch as follows:

With a pair of scissors, cut a piece of tin out of an old can which is not rusty, have the piece quite a little larger than the hole. While the soldering iron is heating thoroughly clean the patch on both sides, and around hole in pan, with emery cloth, then rub both with Nokorode. Have pan right side up so patch will be inside. Now place the tin patch over hole on inside of pan with hot iron outside of pan underneath hole and hold the stick solder inside on edge of patch. As it begins to melt move the solder completely around patch, or use more Nokorode and solder and cover entire patch.

If the article to be mended is either a galvanized iron, or plain iron, brass or copper kettle the same instructions apply, except that the hole must be first tinned, that is, a light coating of Nokorode and hot solder must be put around the hole and thoroughly wiped over with a cloth to which Nokorode has been applied.

If a patch is necessary, be sure to tin patch also, then proceed as directed for a tin pan.

HOW TO SOLDER GRANITE AND ENAMELED WARE.

Scrape off the rough edges of enamel around the hole, ¼ inch or more, according to size of leak, brighten the metal underneath with emery cloth, and apply NOKORODE. Turn pan right side up, and apply a thoroughly heated soldering iron, underneath the hole, place stick of solder on inside of pan, and when metal is hot enough solder will melt and cover the hole.

This place may be coated with bath tub enamel and allowed to thoroughly harden. This will prevent rusting and give a neat finish.

All soldering and patches must be on inside of pan where there is moisture to keep it from melting, otherwise heat from fire will melt the solder and it will drop off.

TO SOLDER THE HINGE ON A COFFEE OR TEA POT
(Except when made of Silver.)

While the soldering iron is heating, thoroughly clean both parts to be soldered.

Hold hot iron to parts about three minutes, taking care not to melt other soldered joints near it. Very quickly dip the stick of solder into can of "Nokorode" and apply to joint while holding soldering iron to parts. Remove iron quickly.

> Remember that Aluminum **cannot** be soldered and articles of Silver and Gold should not be attempted.

Soldering Kink No. 29

To Solder Enameled Tie Pins.

The pin of an enameled tie pin or badge coming loose it may be soldered as follows: Clean pin on end next to the plate, also clean back of enameled plate, apply Nokorode and with a moderately heated soldering iron apply a thin coat of solder to each, then place it in right position and touch iron to back of pin only, leaving it there long enough to barely sweat the joint together. Care should be taken not to leave iron on pin very long at a time as too much heat might crack the enamel.

GLENN METCALF, Blandinsville, Ill.

Soldering Kink No. 38

Removing a Broken Machine Screw.

To remove a small machine screw when the head is broken off, take a small soldering copper and tin the broken part of the screw, being careful not to get solder on the other parts. Then take a machine screw that is a trifle larger than the broken one, file the end bright and tin it. Sweat the two screws together with solder and when it cools a screwdriver will turn out the broken screw.

GERTRUDE M. BENDER, Utica, N. Y., "Popular Mechanics."

Soldering Kink No. 7

An Easy Way to Apply Solder Smoothly.

A good way to tin the surface of a piece of metal is to first clean it, apply a little Nokorode and attach to it in several places, small lots of solder, then use a stick or brush that has been dipped into the flux and spread the solder by brushing it while hot. G. A. BUZZELL.

Soldering Kink No. 6

To Tin Small Work Without Solder.

The following will be found quite handy at times in soldering small pieces. Thoroughly clean each piece and apply the flux to each separately, then place between them a small piece of pure tin foil. Apply the heat and a perfect joint can be made. G. A. TEFFT.

Soldering Kink No. 5

Soldering Metal Fixtures to Lead Pipe.

A cone-shaped piece of strong asbestos sheathing fastened on a piece of copper, iron or brass tubing, as shown in Fig. 1, allows enough solder to to be built up around the point where the two pieces of tubing are to be joined, to assume the shape shown in Fig. 2. This mass of solder can be filed or rasped into the form shown in Fig. 3.

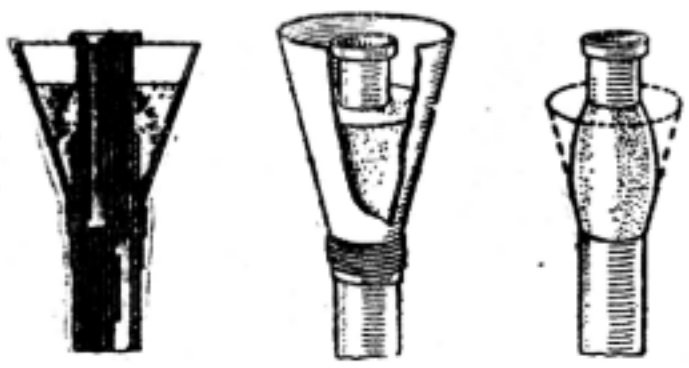


Fig. 1 Fig. 2 Fig. 3

Besides being a reinforcement, this joint is more uniform in shape and thickness than the joint ordinarily made with the soldering iron.

Instead of the soldering iron a blowtorch can be used, the joint first being tinned and then pieces of melted solder dropped into the asbestos cone and heated to the requisite degree for forming a joint.

POPULAR MECHANICS.

Soldering Kink No. 54

For Soldering Small Pieces at Both Ends.

I am a user and admirer of your soldering paste, Nokorode.

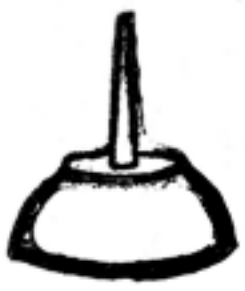
The other day I chanced to pick up a copy of your Soldering Kinks, and having a little kink in mind that has saved me time I thought I would give it to the boys.

In soldering small pieces at both ends one often has trouble with the first end unsoldering.

Take a strip of cloth (preferably wool), dampen it and wrap it around the end first soldered and one will have little trouble with the heat melting the solder off. L. C. WESLEDER.

Soldering Kink No. 52.

To Repair Spout on Oil Can or Gun.



Don't throw your oil can away when the spout is loose. Wash it thoroughly with gasoline. Then put spout in place, clean thoroughly, apply Nokorode, also a heavy coat of solder all around the spout, seeing that it "sticks" all around. This will make your old can or gun as good as a new one. GLENN METCALF.

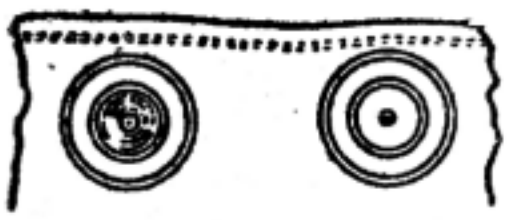
Soldering Kink No. 53.

Stopping a Weld.

A weld can be stopped at any point by placing a piece of paper in between the pieces just before they are brought to a welding heat. The metal will not run together where the paper is placed. A. S. THOMAS, "Popular Mechanics."

Soldering Kink No. 59

Solder Your Buttons Instead of Sewing Them.



Of course on the first thought the idea of soldering on buttons seems rather impracticable, but the boys in the shop here find it a very useful idea. Probably the largest of the users of "Nokorode" wear overalls.

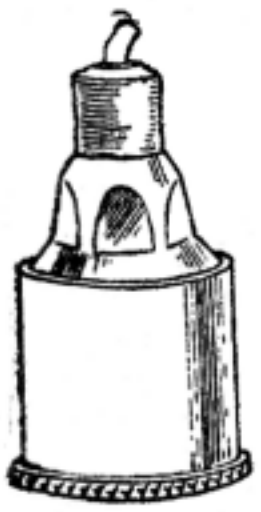
The buttons on most overalls are not sewed on, but made in two pieces riveted together not any too firm. A sudden strain on the shoulder straps will pop the buttons off and then a fellow soon loses his pants.

Now thread, needles and buttons are not found in a great many shops, but "Nokorode" and solder OUGHT to be found in ANY place of business, and all you have to do is place the two parts of the button together, put a little "Nokorode" in the socket of the button and drop in a little hot solder with an iron. Presto! the job is done and the button is more secure than ever before.

H. C. WING.

Soldering Kink No. 40

Convenient Receptical for Soldering Flux.



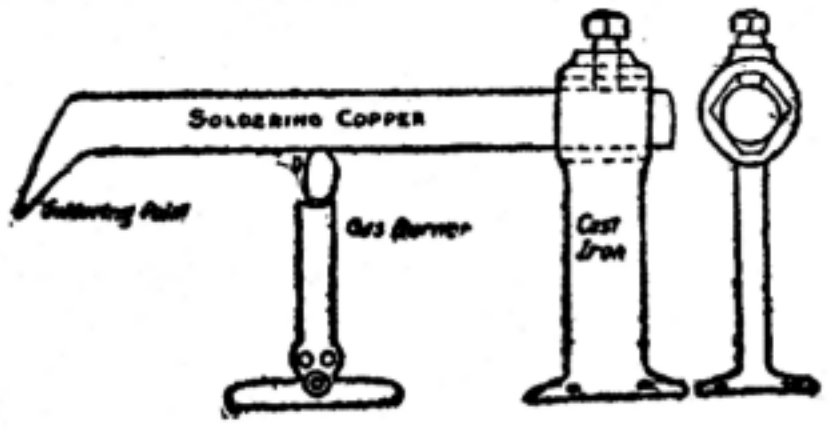
I am a firm user of Nokorode and have a little suggestion to make, one which I am using and like it very well. I have a grease cup of middle size and instead of carrying a box of Nokorode around in my kit, I fill this grease cup which will stand hard knocks in the kit which the Nokorode can will not. Now when I have a joint to solder I take my grease cup filled with Nokorode and give the top of cup a little turn which will cause very little Nokorode to come out on joint; if I have too much out I turn it back a little and in that way I save quite a little paste and I can carry it around in my pocket and it is also always ready.

The grease cup can be used indefinitely while paste in a collapsible tube is much more expensive than when sold in ordinary containers; collapsible tubes can be used but once, by buying NOKORODE in a 1 lb. package and using the grease cups. my expense for flux is very small.

CARL SONTAG, Scranton, Pa.

Soldering Kink No. 47

This Soldering Iron more than Doubles Factory Output.



I designed this device for soldering battery connectors. It worked very satisfactorily on account of the flame being so far away from the soldering point that there is not corrosion and no interruption in the work.

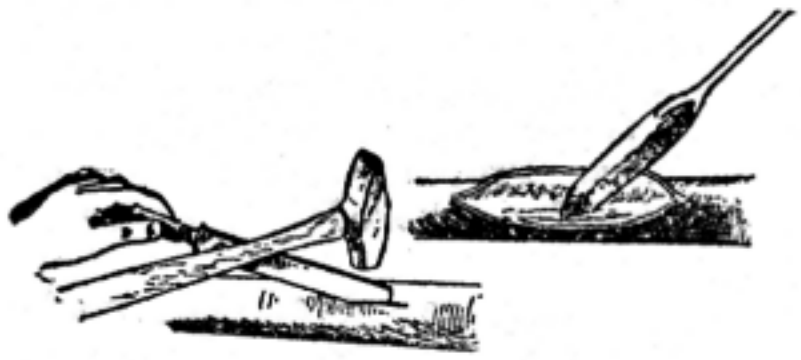
One thousand connections were soldered per hour. The heat can easily be regulated by moving gas burner back and forth

HUGO CARLBORG, Providence, R. I.

Soldering Kink No. 1

Repairing the Bottom Wall of a Lead Pipe.

In case of a leak in the bottom wall of a horizontal lead pipe it is often better to repair than to renew the pipe. Cut a slit in the upper side with a thin knife and work the pipe open so that you can scrape the pipe bright and do your soldering on the inside. Use Nokorode with the solder when soldering lead with a soldering copper. When the leak is sealed over with solder work back the lead on the upper wall, closing up the hole you have made with the knife and solder it.



Repairing a leak from the inside.

Soldering Kink No. 57

To Renew the Threads on a Faucet

Some time ago, at our home, my attention was attracted by a brass faucet which leaked where it was screwed into the tee. The leak was found to be caused by some of the threads being stripped.

I heated the threaded part and dipped into liquid sal-ammoniac and when cool generously applied "Nokorode" and with a well-tinned and extra hot soldering iron applied a coat of solder all over the threaded portion.

This was held before flame of torch until solder began to run, then given a shake and just enough solder was left on to make it fit snugly.

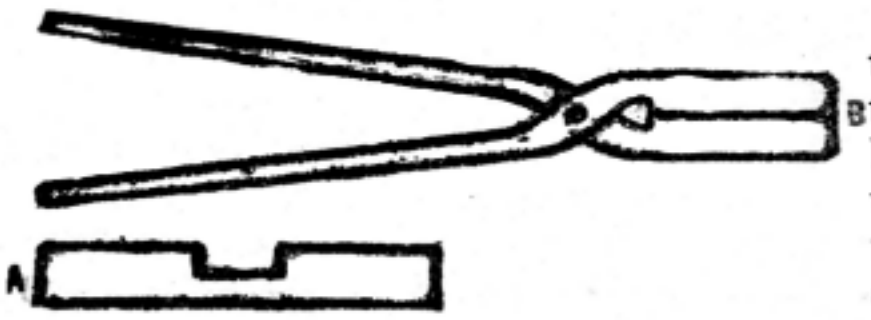
If unable to get a tight joint, the faucet may be turned into the tee while solder is still warm and the threads in the tee will cut a new thread on the faucet so that it will be water tight.

LEONARD MAZUR.

(This same method may be applied to the threads on a bolt that has become too small to hold.)

Soldering Kink No. 65

Brazing Band Saws.



Many people are put to great expense and their work unreasonably delayed because they do not know how to braze their band saws.

"Nokorode" is the best thing in the world with which to braze a saw, and should be used as follows:

The lap end of saws are held in a brazing clamp and a little "Nokorode" Soldering Paste is then applied at the joint, and strips of solder are put in between. A hot iron underneath and one on top, clamping the two together, and the job is completed.

E. F. BAKER.

Soldering Kink No. 56

Repairing a Broken Tooth in a Registering Machine.

It was my work in a certain shop to take care of a few registering machines in which two cast iron gears were employed, and usually when one of these machines came into the shop for repairs it was found that a tooth had let go in one of these gears.

I put on so many new ones that I feared for the company's investment.

After I had about a dozen on the shelf for this trouble, an idea struck me; why not put a new tooth in to replace a broken one; so I immediately got busy with the milling machine and milled a dovetailed slot in gear just below the broken tooth, with this I took a piece of brass the same thickness as the gear and cut out a tooth with a dovetailed base, to fit the slot in gear.

Upon tinning the joint with solder and "Nokorode" and sweating the same I found that I had a gear which answered the purpose nicely, there not being a great deal of strain on the gear when in use.

LAWRENCE GOODHUE.

Soldering Kink No. 70

A Mended File and a Finished Job.

Recently I had several hundred small brass castings to file out and during the operation I had the misfortune to break the file through cramping. Not having another around the shop and not being in a position to secure one at once, I hit upon the plan of soldering the broken one together.

I first tinned over the two broken stubs about a quarter of an inch back by the use of "Nokorode" and a soldering iron, being careful not to draw the temper too much. Next I rolled up a little piece of sheet brass and slipped it over the break. Then proceeded to apply the "Nokorode" and solder the whole together. I was surprised at the way the solder flowed, as the file was not cleaned in any way before the operation, and by careful use I managed to complete the job and am enclosing the sample for examination. I think this same idea might be applied to flat files as well as round.

H. C. WING.

Soldering Kink No. 9

A Time Saver to Increase Speed in Bench Work.

To solder small parts quickly and save the time required to pick up iron or solder, make a stand from two pieces of board nailed at right angles, fasten one end to the bench and in the upright, at a convenient height, make a hole of sufficient size to hold the solder, then by holding the parts to be soldered in the left hand and the soldering iron in the right the upright will act as an assistant and always hold the solder just where it is most convenient.

Soldering Kink No. 20

Soft Solder for Tightening Machine Parts.

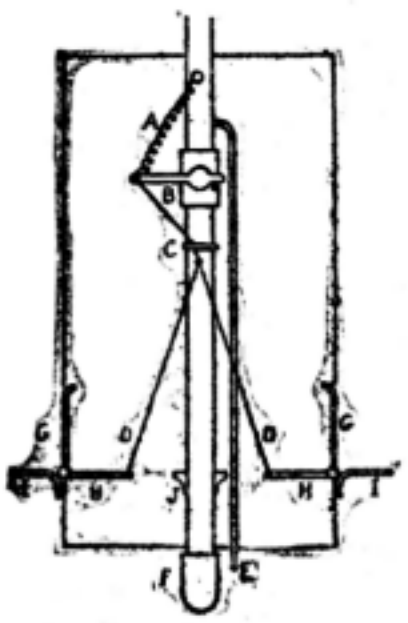
It is not generally considered workmanlike to use soft solder in connection with machine parts, but an exception may be made in tightening up the parts of loose fixtures. For example, if the driving gear on the spindle of a lathe is so light that it does not afford a good support for the key, the gear, key and spindle may be tinned and heated sufficiently to melt the solder which sweats the parts solidly together and holds the gear firmly in its place. Such a job will last almost as long as the various parts and will save all the lost energy and wear that accompany loose, rattling machinery.

POPULAR MECHANICS.

Soldering Kink No. 21

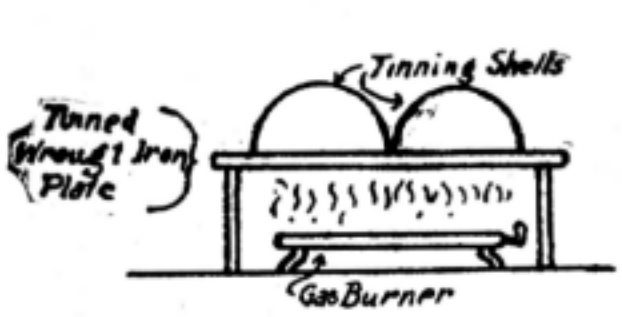
Bench Heater for Two Soldering Irons.

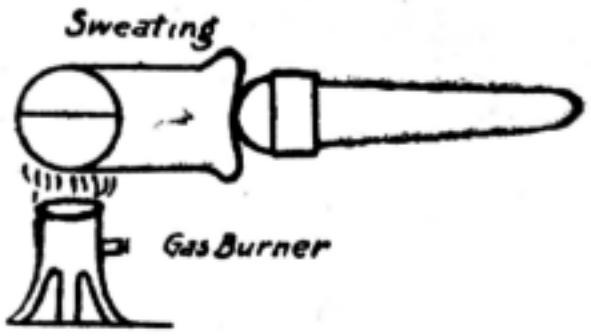
The solder pot described here is used suspended above the work bench leaving the work space free and unobstructed. It can be used from either side of the bench and is so arranged that when not in use, the gas is turned out automatically, only a pilot flame burning. The method of operation is as follows: By inserting the soldering iron by pushing in the door (G) the lever (H) outside of the pot pulls on chain (D) which opens valve (B). When the irons are not in the fire, the doors G are closed automatically by the spring A which shuts off the gas. C is a ring through which the chain passes. I is the rest for the soldering irons when being heated. J is the burner. E and F are the pipes leading to the pilot flame and burner respectively. The position of neither door interferes with the operation of the other, when either door is open the heater is working.



H. PICCARD.

Soldering Kink No. 22





Sweating Process:—Take a piece of wrought iron about 5-16″ x 4″ x 6″ or according to the size of the work. Finish one side of the plate even and bright. Now coat the bright side with Nokorode paste, then apply the solder; heat the plate evenly over the gas burner; then rub the solder over all. Be careful not to over-heat the solder.

Place plate about four inches over the bench. Four nails five inches long will do for legs driven into the bench one inch.

Regulate the gas burner so as only to keep the solder in molten condition.

The work to be sweated must be trimmed on the edges very nicely, then dip the same in some of the soldering solution which may be made of Nokorode salts cut with water to the strength required, and place it on the plate to be coated on the edge; move the pieces around before it is taken off. Put them evenly together in the tongs or holder and sweat over the gas burner.

OTTO CARLBORG.

Soldering Kink No. 16

Scheme for Preserving Tinning On Soldering Copper:

—We have found by cutting a couple of pieces of ordinary iron pipe the length of the gas furnaces and about two inches in diameter, and placing them in the furnaces where the irons were ordinarily placed, we had an oven that would completely protect our irons. It seems that the pipes prevent the corrosive action of the gas and flame, from acting on the soldering irons and thus preserve the tinning.

We have had such remarkable results with this simple device, that I wish to pass it on to the rest of the boys who have, no doubt used many a strong word when they went to solder a jumper and found the tin all burned from their irons. L. L. DAVENPORT, "*Telephony.*"

Soldering Kink No. 17

Better than Electric Soldering:

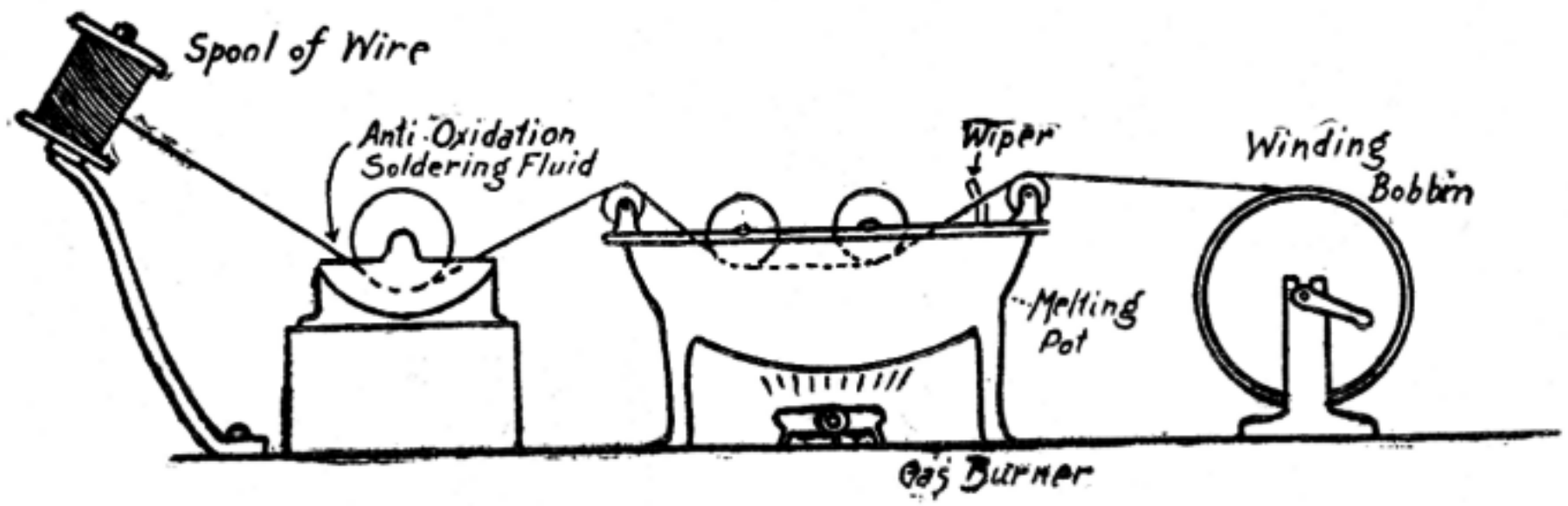
—I have tried a number of different kinds of heating devices while soldering armature coils to commutator bars and also when putting band wires on, and have failed to find anything that answers the purpose so well as the one I am now using.

I took a heating unit of an old discarded tailor's iron; and after doing some repair work on the unit itself, I cut several thicknesses of heavy asbestos board into just the shape of the top of the unit. Putting plenty of shellac between these, I placed them on top of the unit to protect the hand from excessive heat. In making a handle I raised it about twice as far away from the iron as such handles usually are. This is proving to be the most useful tool I have ever found for sweating-in armature leads, and soldering on band wires. W. A. HINES.

Electrical Review and Western Electrician.

Soldering Kink No. 18

Process for Tinning Wire.



Put a spool of bright copper, brass or iron wire on a pin or bar so it revolves; then pull the end of the wire under the grooved roller in the soldering flux, which may be made of Nokorode Salts and water. Next pull the wire under the grooved rolls in the melting pot, then through the wiper made of soft woolen cloth and fasten the end of the wire to the bobbin. Turn the crank and the process is in operation. Heat the tin in the melting pot, so it hardly chars a stick of soft wood and regulate the gas to maintain an even heat.

Keep enough fluid in the cup so it covers 1-3 of the diameter of the grooved roller.

Keep enough tin in melting pot so that 1-3 of the diameter of the rollers is in the metal.

OTTO CARLBORG.

Soldering Kink No. 8

M. W. Dunton Company, Providence, Rhode Island.

Dear Sirs:

We are sending you under separate cover, copy of the American Wire Rope News. You may be interested in reference made to your "Nokorode" soldering paste on page 5.

Our people have found this very useful in our own works and we were glad to give you a little free advertisng, in as much as this publication has been mailed to 100,000 users of Wire Rope and Strand.

Very truly yours, AMERICAN STEEL & WIRE CO., Elec. & Wire Rope Dept.

C. W. BASSETT, Sales Agent.

For Use on Aeroplanes.

a b

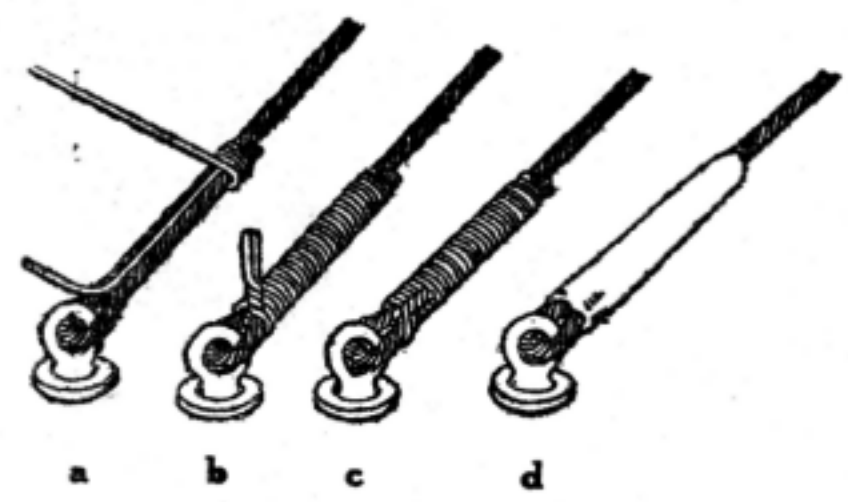
The well known wire rope open-socket of a small, light pattern is here shown fastened to a stay strand. To attach this socket the soldered end of the stay strand is passed through the socket, two or three wraps of fine, tough wire are made about the strand as illustrated at (a). The wires are then untwisted, cleaned with benzine and doped with Nokorode soldering paste. The strand is drawn back into the bowl of the socket until the ends of the wires are flush with the large end of the socket bowl. Molten spelter is then poured into the socket and adhering to the wire which cannot be pulled through the socket (b). By the use of open sockets, stays may be fitted complete of the proper length and readily attached or detached as occasion requires.

AMERICAN STEEL & WIRE CO.

Soldering Kink No. 10

Method of Making Strong and Neat Stay Strand Fastening.

The illustrations explain the method of making a very strong and neat stay strand fastening. The short end of the strand, after passing through the eye is temporarily tied to the main part with string or wire if necessary. Tough annealed iron wire or soft brass wire used for seizing is first laid into the groove between the two parts of strand. About three inches from the eye, the seizing wire is given a right angle bend and the wrapping begun (a); the ends of the seizing wire are twisted together (b) and laid against the seizing (c). The wires in the short projecting end of strand are next loosened or opened by pinching with pliers (c). This is done in order that the solder may adhere to the wires and form a knob that cannot pull out of the seizing. The entire seized fastening is then cleaned with benzine, coated with Nokorode solder-

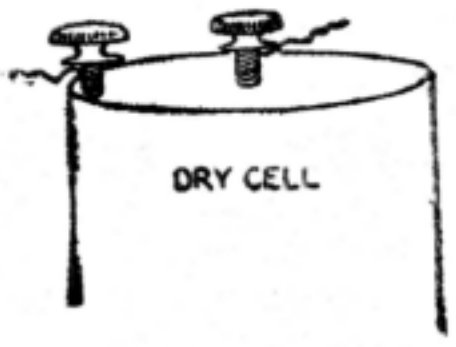


a b c d

in paste, and heavily soldered (d).

If the surface of tinned or galvanized stay wire or strand has been scratched in securing it to eye-bolts, rust spots will soon appear, especially as the moisture settling on the stay runs down and collects on the fastening itself. It is therefore a wise precaution to paint all stay fastenings with black asphaltum paint or turpentine japan.

AMERICAN STEEL & WIRE CO., *Wire Rope News.*



Soldering Kink No. 31

To Solder Negative Pole on Dry Cell.

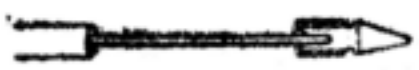
"Often the negative binding post on a dry cell gets loose and drops off. Don't throw it away but do as follows: Pull cardboard cover off, clean zinc shell of battery where terminal belongs, dip terminal in muriatic acid, place on edge of battery apply a little Nokorode and solder."

GLENN METCALF, Blandinsville, Ill.

Soldering Kink No. 11

Grooved Copper, Good for Soldering Heavy Wires.

I had some trouble in soldering small insulated wires, usually of No. 18 B. & S. Gauge to line wires. To make the joint I was in the habit of removing the insulation from the small wire over a length of six or eight inches and winding it tightly around the larger wire after cleansing both wires thoroughly with sandpaper. Usually a good hot copper, applied to this with proper flux would make the solder stick, but if solder was applied before the joint was hot, much ran to the lower side of the copper and dripped off, or if the work was in some inconvenient place the copper often was too much cooled before we could get in position. Under these conditions solder often sticks only on one side, or in scattered spots.



I cured my trouble by filing a small groove across my copper just back of the bevel. This groove is about 3-16 inch deep and of like width. A good groove can be easily cut in a copper by clamping a flat piece of iron (buggy tire is good) against the face of the copper in a vise, and drilling between the copper and the plate of iron. I find a 3-16 inch or 9-23 inch drill about the right size for a No. 12 wire. The drill should be made to cut to at least two-thirds of its diameter into the copper.

F. H. S. "Telephony."

Soldering Kink No. 12

For Soldering Commutators:—In soldering commutators, I find that instead of using the iron with the usual 40 to 60 degree taper, a blunt pointed iron about 90 degrees, keeps the heat right at the point where most needed, allowing the solder to run down and around each wire in the slot.

H. W. BANSMITH.

Soldering Kink No. 27

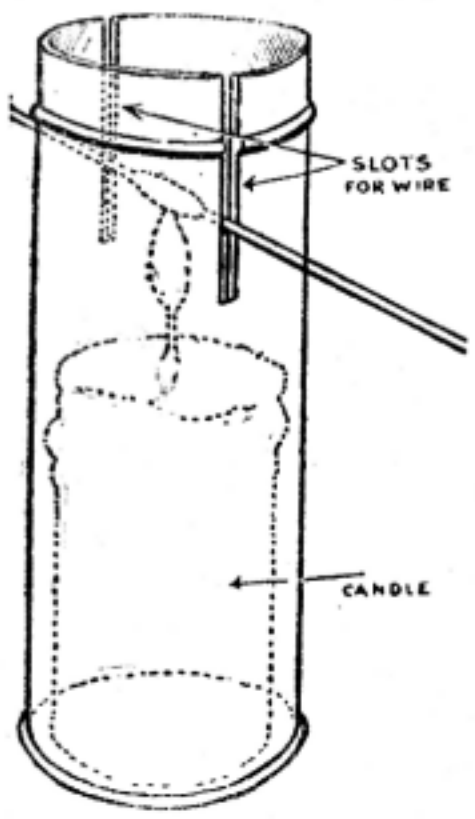
Soldering Telephone Drop Wires to Line Wires.

The trough where soldered, only, is brightened with fine sand paper. Wire solder, Nokorode Paste and any hot iron, tinned or untinned or blow torch does the rest. Used several years. Nothing like it. Always in long wrap as shown. Easily disconnected.

H. G. NEWELL

Soldering Kink No. 4

A Handy Soldering Torch for Linemen.



This diagram shows the construction of an ordinary round talcum powder box which does very nicely as it will just admit a large size candle and by cutting two slots down the side of the can, one opposite the other, just wide enough to admit the line wire to enter so as to keep the joint the proper distance from the blaze as the candle burns away, it will do the work not rapidly but very effectually when the wind is too strong to permit the use of a blow torch.

I have used this simple device for over a year and find it very good. The can has two principles, one is to protect the blaze from the wind and the other is to confine the heat of the blaze into as small a place as possible.

Columbus, Ohio. H. E. AMANN.

Soldering Kink No. 26

To Repair Open Circuit on Solderless Connectors.

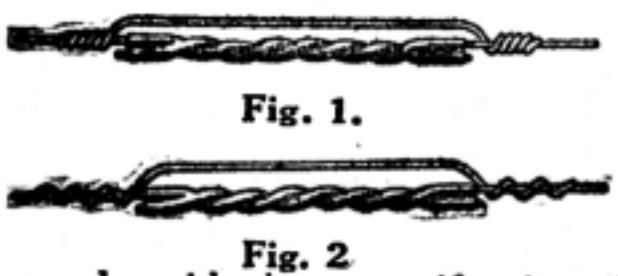


Fig. 1.

Fig. 2

Construction specifications call for a certain number of turns for each kind of copper sleeve and to linemen's failure to comply with these specifications is due some cases of loose connection in the line wire. Upon repairing a new copper wire with an old one in which the joints had been bridged and soldered, a very noisy circuit was found. When investigated, it was discovered that all joints had been bridged but in soldering the bridging wires, many loose connections had been left. The bridges were made as shown in Fig. 1. That is, the bridging wire was wound around the line wire in a closed coil and the solder applied to the outside of the coil. This resulted in all the solder on the bridging wire being held on the outside, so that none reached the line wire. There were therefore loose connections between the bridging and the line wires. The proper method of connecting the bridging wire is shown in Fig. 2. By leaving plenty of surface on the line wire, between the turns of the bridging wire, solder will take hold of both wires equally well and a good joint will be made.

Soldering Kink No. 46

To Keep Telephone Joints from Rusting Out.

A galvanized iron wire will last just as long as the galvanizing lasts, as soon as the zinc coating or galvanizing is penetrated the iron begins to rust and is soon eaten away; many men when putting up a telephone line will bruise the galvanizing at each tie, or will use acid when soldering joints and failed to wash it off. If NOKORODE is used there is no necessity to wash it off and a perfect joint is assured without any possibility of rust. TELEPHONY PUB. CO.

Soldering Kink No. 13

Soldering Terminal Lugs:—In soldering terminal lugs on wire those who have experienced any inconvenience from solder running over the outside of the lug and the latter becoming oxidized from the flame, can apply the following rule to advantage. Tie a small piece of asbestos sheet around the top edge of the lug with wire and melt solder in the lug in the usual way, only do not fill it completely, but have it about two-thirds full. When hot enough, the wire end is inserted and the solder rises in the lug to the top. If it should overflow, the lug does not catch it, as the asbestos acts as a protector.

To polish off the oxidized appearance, I carry a small portion of cleansing powder such as Dutch Cleanser, Sapolio, or Bon Ami, which, rubbed on with a damp cloth removes the tarnish as well as the remainder of burnt lacquer on the lug, and gives a good polish. H. PICCARD.

Soldering Kink No. 14

Fishing Conduit:—In fishing wire in conduits, when other schemes to get the flat steel snake wire through the pipe failed me, I have sometimes saved the day by soldering a little ball of lead solder about a quarter of an inch in diameter on the hook at the end of the snake, leaving part of the hook exposed. In the open part of the hook not covered with lead, I tie a couple of loops of twine. The theory applying to this is that the flat edge of the end of the snake tends to catch in the space in an elbow where the pipes do not butt together; but the ball on the end of the snake makes the latter slide over the joint in the pipe without catching.

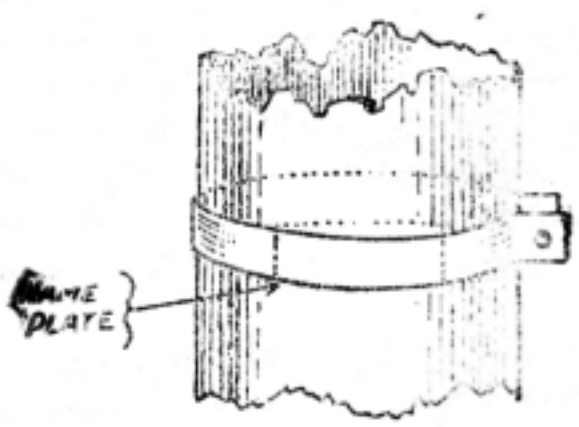
If the snake still fails to go all the way through the run of the pipe, another snake with an open hook is introduced at the other outlet and passing the ball of lead, the hook on this when pulled back, catches in the cord on the first snake, and pulls the latter safely through, so that the wire can then be pulled in. H. PICCARD.

Soldering Kink No. 15

Convenient Terminal Connector:—I recommend this lug to anyone who does outside testing with portable instruments, and who has been bothered by the wire breaking off at the terminal. In making leads skin the insulation off the stranded wire for about two inches, place end in vise so that skinned end is free, and wind No. 18 or 16 bare copper wire spirally around the skinned end, winding about three turns around the insulation to keep the wire from unwinding. Solder an inch of the terminal and tape the unsoldered part to about an inch over the insulation. The unsoldered part will act as a spring. CHARLES RIEMENN.

Soldering Kink No. 33

To Solder Brass Name Plate on Nickel Plated Shell.



There is one job, however, that caused us considerable trouble until we hit upon the following method:

The shell is polished and nickel plated. The point was to affix the name plate without having the solder and acid run out from under the plate on to the shell. Solder will show through nickel, and leave an unfinished appearance.

We first rolled the plate to conform to the circumference of the shell. On the back of the plate was spread the Nokorode paste, just enough to cover it. On to this was sprinkled some solder filings, prepared for the purpose. The name plate was placed in position and held firmly by a brass band arranged with a clasp to tighten on the side. The band was the same width as the plate and made from 20 gauge metal. The blast was then applied to the band and the heat allowed to penetrate the band and plate and run the solder. The whole outfit was then cooled in water, the band removed, and no sign of solder around the edges.

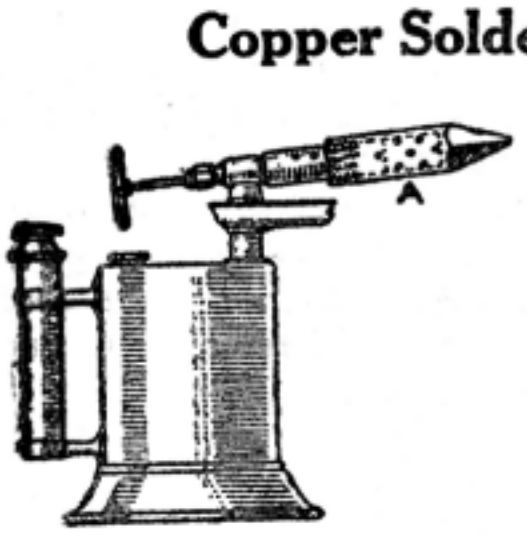
In using acid, the liquid would naturally run down the shell to the lowest point carrying the fine particles of solder with it. By using Nokorode paste this was obviated, as it not only remained in place itself, but held the solder as well, until set.

The same method, with slight changes, could be used on flat work.

THE BARLOW COMPANY, Holyoke, Mass.

Soldering Kink No. 50

Copper Soldering Point on a Blowtorch.

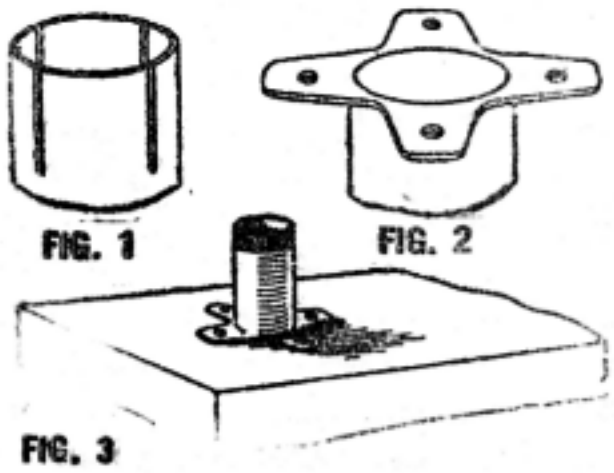


The ordinary blowtorch, with the burner end equipped with a copper point, makes an excellent soldering device. The point can be easily kept at the right heat and there will be no want for hot coppers. The end of the burner is threaded on the outside and a hole is drilled in the copper point and threaded to match. Small holes are drilled in the copper in the same manner as in the burner to make vents for the flame.

JOHN GERRER, "Popular Mechanics."

Soldering Kink No. 66

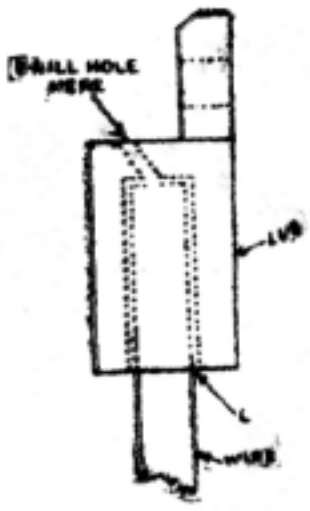
Connecting a Pipe to Sheet Metal.



The end of the Pipe as it is prepared to be Rivited on the Sheet Metal.

In the absence of a waste nut, an iron pipe can be easily fastened to sheet-metal work, as shown in the sketch. The end of the pipe, Fig. 1, is slotted with a hacksaw to form four projections, which are turned outward and their ends rounded, as shown in Fig. 2. The face of the projections are tinned and then riveted to the sheet-metal surface, as shown in Fig. 3. After soldering the joint, it will be as good or better than if a waste nut had been used.

POPULAR MECHANICS.



Soldering Kink No. 42

Soldering Wire Lugs which Project Downward.

Your offer of one (1) dollar for solder kinks noted and would state that in securing lugs to wire when wire is too short to allow us to turn lug over to run solder in, that we drill a hole in lug near closed end, stick a piece of asbestos over wire, place lug over bared part of wire and fill lug with solder through hole which we have drilled in same

F. W. RIDGWAY, Freeport, Ill.

Soldering Kink No. 44

To Stop Spattering Solder on Finished Floors when Hanging Fixtures.

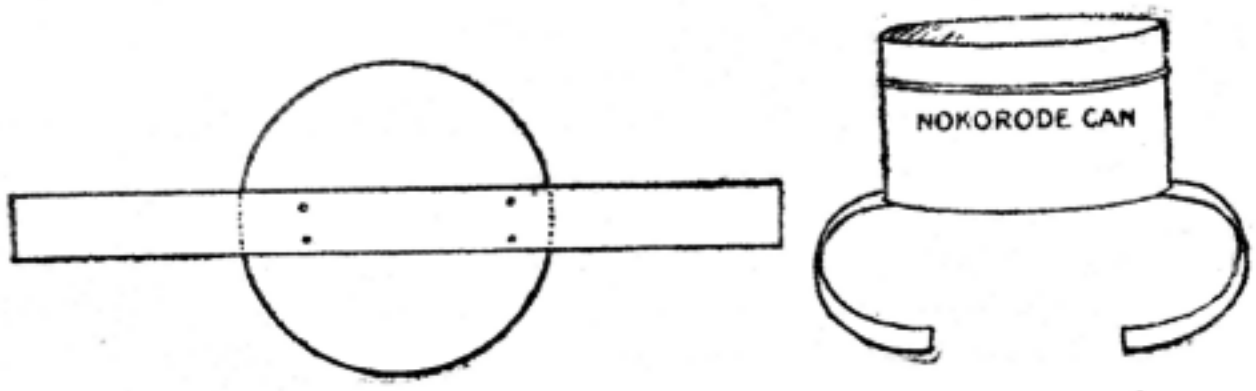
I find that when hanging fixtures in a finished house tissue paper over a piece of heavy wrapping paper makes the best kind of a protection for the floors or carpet. By using the paper which comes around the fixtures from the supply house this makes a convenient and inexpensive protection for floors. The tissue paper prevents hot solder from spreading and flying around as it will if it drops on a hard paper, and the thick tough paper underneath prevents the solder from striking through.

Tissue paper may also be used to advantage to lay over the canopy, arms, or other parts of large ceiling fixtures to catch any solder that may drop.

FRANCIS H. NORTHROP, Wilton, Conn.

Soldering Kink No. 43

A Nokorode Wrist Box.



Enclosed please find a rough sketch of a 2 oz. can riveted to a clip that is formed to fit the wrist. The can being filled with NOKORODE SOLDERING PASTE.

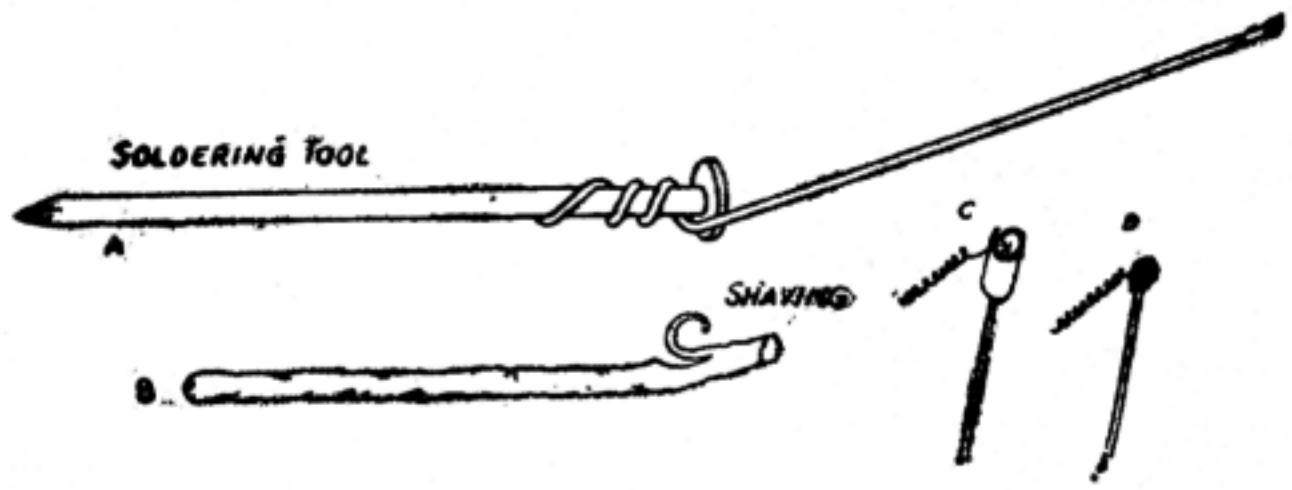
Our workmen use these for soldering and in doing so lose no time, soldering one joint after another without stopping to pick up the can.

This idea of my own if known would be greatly appreciated and especially by users of "NOKORODE," because it will not melt in summer heat and run, also because it does not corrode joints, being in paste form makes the outfit surpassing.

JOHN A. COWING, Cleveland, Ohio.

Soldering Kink No. 36

Soldering Break in Telephone Receiver.



Certain telephone receivers break down at the coil terminal. The proximity of the coil and the narrow space make the soldering somewhat difficult. In place of a torch and a jeweler's soldering iron I now use an iron spike shown at A, which can be heated in a convenient stove. From a piece of No. 8 wire solder I cut a small shaving and roll it up into the form of a sleeve or loop. After wrapping the fine wire of the receiver around the terminal I slip the sleeve of solder referred to above over it all, add a little "Nokorode" paste as at C, and apply the heated spike carefully with pliers and we have the finished result at D.

HENRY GRANT NEWELL, Le Raysville, Pa.

Soldering Kink No. 49

A New Kind of Soldering Iron.

Fig. 1.—Soldering Iron.

I have found the soldering copper illustrated here to have several advantages over the regular straight tool, especially when wire joints near a ceiling have to be soldered. By the use of a tool of the kind illustrated I have saved myself from many a burn which would have been inflicted by falling pieces of hot solder if a straight soldering iron had been employed.

In making this tool I took an ordinary straight iron and removed the copper portion from the stem. I then drilled a hole through the copper as indicated, making the hole slightly smaller than the rod to be inserted. The rod was then filed to a slight taper, driven through the hole and riveted on the end. Then I filed a groove crosswise in the copper near pointed portion, the purpose of this groove being to hold the melted solder, which otherwise would have a tendency to roll off as fast as applied.

In using this soldering iron the groove is filled with solder and held parallel with the wires to be soldered. Thus the hands are kept well out of the way of any metal that may fall.

This iron can be used rather conveniently as a hammer also when a better hammer is not at hand. HENRI PICCARD, N. Y. City.

Soldering Kink No. 37

Railway Telephony.

In depots, towers and other buildings adjacent to railway tracks constant trouble is experienced due to vibration causing loose connections at points where the wires terminate under screws and on binding posts.

Wherever possible soldered connections should be used.

TELEPHONY PUBLISHING CO.

Soldering Kink No. 58

Soldering Badly Corroded Wires.

It is a proposition to solder two stranded conductors together or into a lug when they are composed of from 50 to 150 small wires such as lamp leads for moving picture machines, etc. Some are always badly corroded and it is next to impossible to scrape them to make a good job of it. After removing the insulation put the wires in a solution of nitric acid 25%, water 75%, for about a minute. This may be in a small bottle to be convenient. Then thoroughly wash wires with water and dry. They are now very clean and bright and can be easily soldered with Nokorode and solder, preferably using an iron or gas jet.

HARRY METCALF.

Soldering Kink No. 60

Rusted Telephone Joints.

In less than six months on one small telephone exchange practically every joint in a 14-mile metallic line had rusted out. New joints were promptly cut in, but in a few months these were gone. The trouble was found to be due to the use of soldering acid when making the joint, and the acid was not properly washed off. Galvanized iron will last just as long as the galvanizing lasts. As soon as the zinc coating or galvanizing is penetrated, the iron begins to rust and is soon eaten away. Every man who has put up a wire fence knows this. Yet these same men, when putting up a telephone line, will bruise the galvanizing at each tie, or will use acid when soldering the joints. Nokorode Soldering Paste should be used on all lines and can be used to tin over these bruised places and does not require cleaning after use, because it does not corrode.

TELEPHONY PUBLISHING CO.

Soldering Kink No. 55

Soldering Connection to Dynamo Brush.

Usually by the time the "Pig Tail" or woven wire becomes broken off at the dynamo or motor brush the copper plate to which it is soldered is almost gone or the brush too oily to solder again. When a quick job has to be done the wires may be scraped bright and a little Nokorode applied. Drill a ¼-inch hole thru the brush or into the end of it and run hole full of molten solder and put the wire into this, and when set the job is done. I have seen this tried on machines up to 15 K. W. and know it is satisfactory for any small dynamo or motor. HARRY METCALF.

Soldering Kink No. 62

Cable Splicing.

It is necessary, or is the custom, with cable splicers to use soldering flux to solder the wires and tallow on the sheath to make the wiped joint. I have found "Nokorode" superior to tallow for lead wiping and use same altogether. This obviates carrying two kinds of flux for one job, which will be appreciated by one who has much aerial work. It also saves time.

HARRY METCALF.

Soldering Kink No. 69

Stopping Leaks in a Tin Roof.

FIG 1

FIG. 2

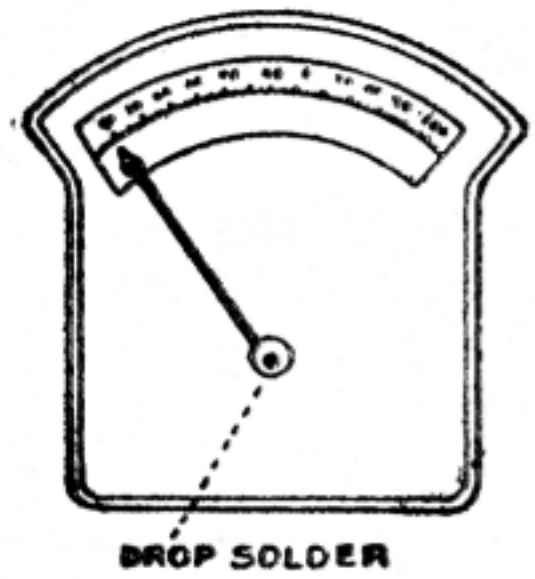
The usual method of fastening roofing of any kind is to drive a small nail through a tin disk and the roofing into the sheathing beneath. When a tin roof fastened in this manner bulges, it will draw out the nail, and the expansion and contraction of the metal will leave the nail and disk in the position shown at Fig. 1. If a screw, brass or iron, is used, this difficulty can be prevented. After the disk is screwed down, solder the head of the screw to the disk, and the edge of the disk to the tin roofing, as shown at Fig. 2.

A leak can be stopped by fastening one of these disks over it in the manner described. In either case, the disk should be given a coat of paint after it is fastened down.

POPULAR MECHANICS.

Soldering Kink No. 68

Balancing a Voltmeter Pointer.



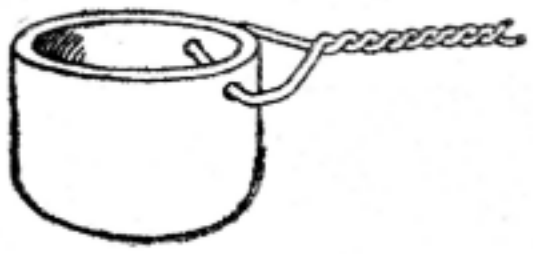
I have found an ideal way of making a Volt or Ammeter read correctly, when testing and other ways fail.

First—Clean the bottom of the pointer, and then apply a small quantity of "Nokorode" and after a drop of solder.

You will find that the pointer will come to its proper place after this treatment. FRANK SCOTT.

Soldering Kink No. 41

A Home Made Device for Soldering Fixtures.



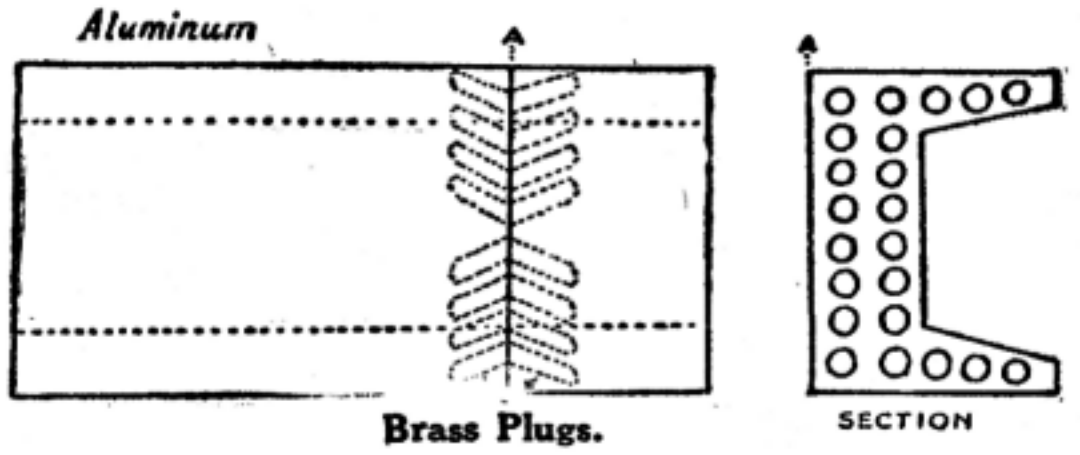
I hand you herewith a soldering kink which I have found very useful in fixture hanging, as it allows of soldering the connections without smoking or damaging the most delicate finish on ceilings.

From the rough sketch you will get the idea, and I will say that I make the cup from cast iron pipe cap, of ¾ in. or 1 in. size, drilling it for 2 holes of proper size to take No. 12 Galv. Telephone Wire, which is passed through, brought back and twisted together to form a handle.

Fill the cup with solder and when hot it will solder several joints without reheating. The connections are made in what we call a pigtail with the ends pointing down, treated with Nokorode, and dipped in the cup. M. F. LIBBEY, Whitefield, N. H.

Soldering Kink No. 51

How Aluminum may be Soldered with Nokorode.



Drill as many holes as possible at a slight angle and drive in tight brass plugs, then file or trim the plugs evenly or a little below the surface of the aluminum. Next coat the surface with NOKORODE and apply the solder with the hot soldering copper. Then put the two surfaces together; heat and treat it the same as copper or brass.

The cut shows how an aluminum pattern is being lengthened by soldering a piece to it.

OTTO CARLBORG, Providence, R. I.

FIG. 2.

Soldering Kink No. 30

To Solder Tubular Radiator.

When one of the inside tubes springs a leak and it is impossible to get at it to solder, turn radiator up side down, cut square hole in bottom of radiator directly under leaky pipe; then dip small piece of waste in "Smooth on Iron Cement" and push it into the pipe being sure to get it clear to top of pipe. (To do this get a rod the right size and mark on it the length and then drive plug in with rod until mark is even with other end of tube). Keep on this way until you have a plug ½ in. long at each end of pipe. When cement is dry this pipe will be same as solid at each end. Then cut a piece of brass about ½ in. larger each way than the hole (Fig. 2.) clean, and solder it over hole. This will make a first class job and will not be noticed.

GLENN METCALF, Blandinsville, Ill.

Soldering Kinks No. 39

Wire Joints Soldered with Heat from a Motorcycle Engine.

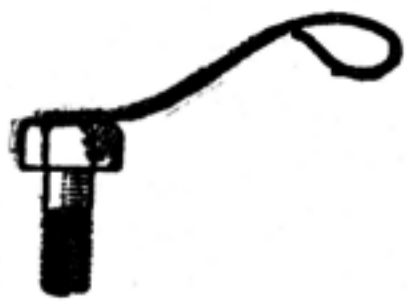
The "telephone trouble shooter" who rides a motorcycle can make use of a hot engine for heating a soldering iron. When copper wires are to be soldered before placing them on a pole or in a box lay the joint on the hot cylinder until it melts the solder.

Fuses and telephone transmitters can be repaired in this manner. I have many times lighted my alcohol torch with a spark from the spark coil by touching it to the frame of the motorcycle.

C. F. HIGBY, "Popular Mechanics,"

Soldering Kink No. 72

Starting a Bolt in a Difficult Place.

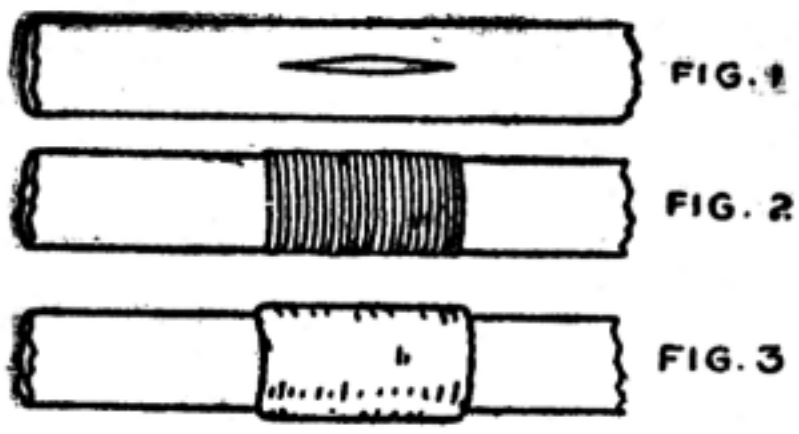


Recently, while working on an automobile, I found it difficult to get a bolt started in its place, and when I had about decided to remove the other parts to enter the bolt, I hit upon the following scheme of overcoming the difficulty. A piece of wire was procured and one end lightly soldered to the bolt head.

This served as a handle for placing the bolt, and was easily removed by giving the wire a few turns. The same means can be used to enter bolts and pins in places not easily accessible, the time of preparation being small as compared with the practical value of the device. POPULAR MECHANICS.

Soldering Kink No. 61

Repairing a Crack in the Pipe of a Stanley Automobile.

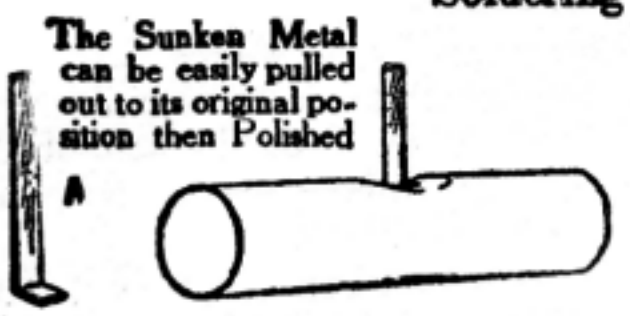


I had a very bad crack in the steam pipe in an automobile which I was repairing. The crack was 2½ inches long, and was spread apart in the center about ⅛ of an inch. I did not want to take the pipe out as that would necessitate taking the engine apart, and I would also have to wait a month before I would get it back from the factory.

First I tried soldering with resin, and filled up the crack with solder, then I started up the boiler and got up about 100 pounds of steam in the pipe, but it started to leak, as the pressure was too much for the solder. I then decided to try another idea, as I had only 100 pounds pressure in the boiler and had to get 250 pounds.

This time I cleaned up the pipe very clean and got some of your "Nokorode" and spread around the pipe where the crack was, then took a piece of wire about 1-32 of an inch in diameter and wound it tightly around the pipe where the crack was, after which I put another coat of "Nokorode" on the wire, then added another coat of solder, started up the boiler with 150 pounds of steam pressure, and finding it did not leak, I kept adding more pressure of steam, until I had reached the maximum rate, which is 250 pounds, and the automobile has been constantly in use for the last six months. JOHN M. CRAIG.

Soldering Kink No. 63



Removing Dents from Thin Metal Articles.

Dents in any kind of sheet metal, especially the brass fixtures of an automobile are exceedingly difficult to straighten out and make a neat appearing piece of work. One of the best methods of doing this is to make a clip of metal, steel, or brass, as shown at A in the sketch, and solder the small part turned at right angles to the metal in the dent. The sunken metal can then be pulled up, the clip unsoldered and the surface polished. It is not necessary to drill a hole in the fixture, and the surface can be smoothed up like new.

POPULAR MECHANICS.

Soldering Kink No. 67

"Better Than a Nut On a Cyclometer Striker."

Most of the users of cyclometers on a motor cycle or bicycle find it a hard proposition to keep the cyclometer striker in place on the spoke, because the repeated sharp blows that occur when riding fast will loosen up most any screw, and turn the striker around, often breaking the striker entirely.

I have found a very good way to overcome this difficulty by fitting a piece of hard leather on the hub end of a broken bicycle spoke, which was cut about three inches long. The other end of this piece of spoke was wrapped tightly around a spoke in the wheel in the proper position. Then a little "Nokorode" was applied and both soldered tightly together by using a blow torch. Leave a free end of about an inch to give a little spring to the striker to soften the shock of the blow. If the job is well done it will stand up very well.

H. C. WING.

SCHEME FOR PRESERVING TINNING ON SOLDERING IRON

If you have trouble with the tin burning off when heating your soldering iron, get a plumber to cut a piece of ordinary iron pipe about 1½ inches or 2 inches inside diameter and about 5 inches or 6 inches long. Lay this iron pipe on top of the gas stove or in the coal stove in such a way that the flame of the heat will be on the iron pipe, then slip the soldering iron inside the iron pipe, which will completely protect the copper.

It seems that the pipe prevents the corrosive action of the gas and flame from eating the tinning from the copper.

This is a simple kink, but remarkably effective.

Soldering Kink No. 2

Stopping a Leak in an Automobile Radiator.

Gentlemen:— Enterprise, Ala., March 23, 1912.

In soldering the connections of the water supply to an automobile radiator, the connections had been soldered several times; from the jolt of the machine it would break loose; the radiator being springy would leak with packing between the radiator and water supply.

I bolted the connection to the radiator, using a piece of packing, then after repeated efforts to solder over the packing with the products I had on hand and failing, I used Nokorode and it held all right; by catching the flange of the water supply across the edge of the packing to the radiator with solder holds it steady and keeps it from shaking and causing the packing to let it leak.

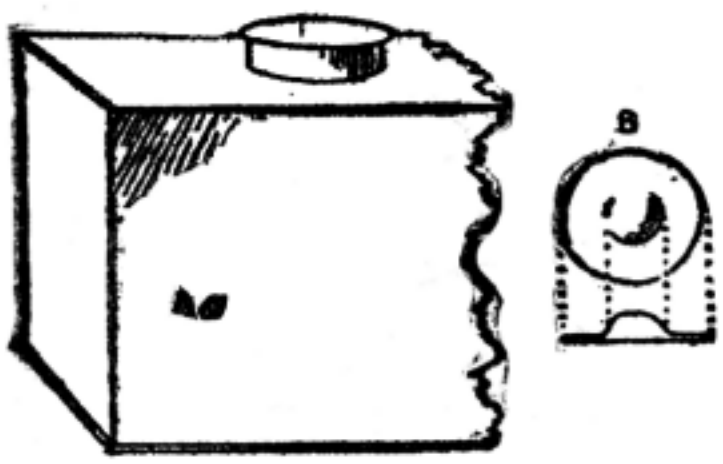
The soldering would not hold until using Nokorode paste.

I am figuring on ordering some as I have constant need of soldering in my business.

ENTERPRISING PLUMBING & HEATING CO., H. H. Bailey.

Soldering Kink No. 45

To Repair Leak in Gasoline Tank without Removing from Car.



I had a leak around rivet in the gasoline tank of our car and could not repair same without removing tank from car which would require the removal of the body, so I tried soldering from the outside but with no results. I then made a patch from a small piece of sheet copper and peining it so that it was dished quite a little, thoroughly tinned the inside of patch, first applying NOKORODE, then after applying NOKORODE to the tank around the leak, I next heated my copper very hot and placed the patch on it and put it in position, holding it there and pressing it hard enough to work out all surplus solder and after smoothing up the edges my job was as tight as could be wanted by anyone.

Would advise those who may try this to have their tank absolutely dry and free from gas as the result of having it otherwise would no doubt be disastrous.

IVAN R. LUCAS, Bradford, Pa.

Soldering Kink No. 48

To Repair Gasoline Feed Pipes.

Fig. 3.

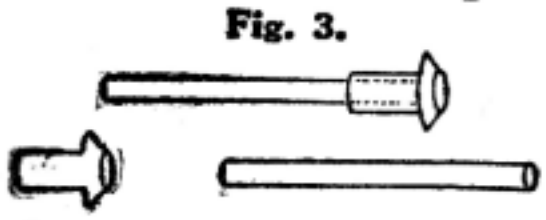


Fig. 2. Fig. 1.

The following will be found very useful in soldering connections on the gasoline line on gas engines and automobiles.

First thoroughly clean end of pipe (Fig. 1) and tin end back for about an inch. Then clean small end of sleeve (Fig. 2) and tin end, inside if possible. Next hold sleeve with pliers and pipe in hand and hold before flame of torch, and as the solder melts slip sleeve over pipe. Then run a drop of solder around pipe at end of sleeve and you have a first class gas tight joint shown at Fig. 3. For a neat job finish with a strip of emery cloth. Use NOKORODE and it will not corode.

GLENN METCALF, Blandinsville, Ill.

Soldering Kink No. 35

To Solder Cable and Parts Set in Hard Rubber Without Melting the Rubber.

To solder cables to posts set in hard rubber connectors in automobile electric lighting work, without melting the rubber, hold the rubber plug by wrapping it in a wet cloth, use NOKORODE paste and solder with a small iron.

HERBERT W. KIMBALL, Haverhill, Mass.

Soldering Kink No. 19

Repairing a Crack in Cast-Iron Pipe or Automobile Cylinder.

A crack in a cast-iron pipe or a gasoline-engine cylinder, caused by freezing can be repaired in the following manner, if the pressure the part has to withstand is not too great. Procure some sulphate of copper, commonly known as bluestone, and dissolve it in water. Clean the edges of the crack well with a file or sandpaper. Paint the iron with the solution several times until there is a coat of copper on it. The copper surface can be easily soft soldered which will produce a satisfactory repair in many cases.

WM. W. GRANT.

Soldering Kink No. 28

To Solder New Thread on Grease Gun.

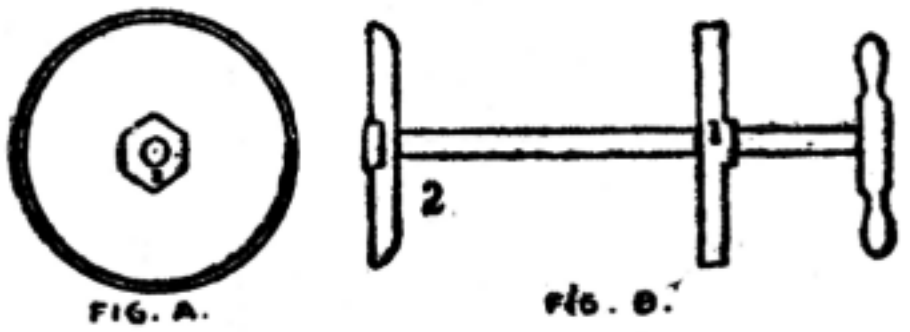


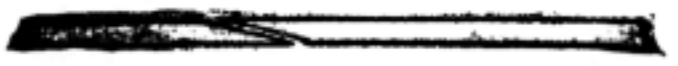
FIG. A. FIG. B.

When the threads on the cap of a Grease Gun become so worn that it jumps threads, remove plunger and unscrew cap. On the inside of cap solder a nut the same size and thread as the screw. This will make the gun good as new. Be sure to solder the nut to the inside of the cap as it will stand more direct strain than on the outside.

GLENN METCALF, Blandinsville, Ill.

Soldering Kink No. 32

Making a Splice in an Armature Coil.



"When it is desirable to make a splice in an armature coil where large wire is used, bevel the wires as shown and with Nokorode and solder tin the surface with solder, then solder them together. If there is room the joint is improved by wrapping it with fine wire before soldering. The splice is then wrapped with insulating material."

HARRY METCALF, Blandinsville, Ill.

To Insure Satisfactory Results.

While it is possible under the most favorable conditions for an expert solderer to get satisfactory results from the use of acid or various prepared soldering fluxes on the market, you will eliminate all chances of failure due to the variation in quality of the acid or flux used, by being particular to use Nokorode Soldering Paste or Salts.

Nokorode, as its name implies, is especially designed to provide against any possibility of corrosion, and was originally compounded to meet the most exacting conditions required by electrical workers.

It is not affected by climatic changes or conditions which usually destroy the effect of soldering fluxes.

If you have never used Nokorode, mail 5 cents in stamps to The M. W. Dunton Co., Providence, R. I., and you will receive a sample package.

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