



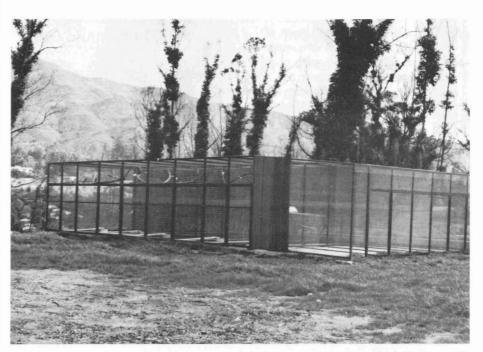


A view through 10' flights towards rows of 20' aviary incomplete.

an aviary that's a steel

by Harry Linden Santa Barbara Bird Farm

The last time you made your ritual visit to a nearby zoo to see if any new birds had been added, or gone to nest you probably failed to notice the construction



First set of complete flights, long flights - 3' & 4' x 20' x 7'10". Short flights - 3' x 10' x 6'6" & 7'10".

of the cages or flights. The framework of the flights are so simple and smooth that such distracting details as chewed up 2" x 4"s, protruding nails, and delaminated plywood, have been completely eliminated — all through the use of steel tubing.

Like many other chronic zoogoers and bird breeders my wife and I visit our local zoo often and and occasionally even have a look at the elephants! One thing that has always stood out in our minds, other than the critters themselves, is the steel cages. Year after year they remain the same — smooth, efficient, attractive, and, other than an occasional fresh coat of paint, maintenance free. I had always wanted metal aviaries, but like so many other breeders had shyed away after reading about "exorbitant prices" in various bird books.

On July 26, 1977 we suddenly had the unusual and, in this case, unwanted opportunity to start all over again — from scratch! Our home, all our belongings, our bird farm, and half our breeding stock were destroyed in the tragic Sycamore Canyon Fire in Santa Barbara, California. I won't go into details about the fire, but only to say losing the birds was the worst part.

Since we subsequently had birds living in friends' garages, in miscellaneous aviaries, and sharing our trailer, I started immediately to build new flights. The first consideration was the size of the flights and my immediate thoughts were in the standard 8 ft., 10 ft., and 12 ft. lengths with widths of 3 ft. and 4 ft. I also had decided to build some experimental flights from steel, because of past bad experience with wood and feathered termites.

I found that most steel tubing comes in 20 ft lengths, which is nice since any 2" x 4" over 8 ft. long is usually crooked, or will warp with time, making long flight construction difficult. The decision was made to go for broke and build 20 ft. long flights. I also decided that a thin wall, square tubing would be the easiest to fabricate and chose a tube of .065 thickness and 1½" square dimension for the main framework. For the doors I used .065 by 1" square. The cost of this tubing is about 1½ times as expensive as wood 2" x 4"s, and easily ten times stronger and more durable.

I used a 10" abrasive wheel mounted in a radial arm saw to cut the tube. I found a radial arm saw to be the easiest and most accurate method for cutting long lengths. Incidentally, the 20 ft.





h&k bird farm

143 So. Brea Blvd. Brea, California 92621 714 (529-9466)

BUY – SELL TRADE



MOST CAGE BIRDS
FEED AND EQUIPMENT
Ship Anywhere



FOR SALE All Species and Mutations of Lovebirds

Write for current price list (714) 727-1486

Lee Horton — after 6 p.m. 2376 Bella Vista Vista, CA. 92083

Walnut Acres Aviaries

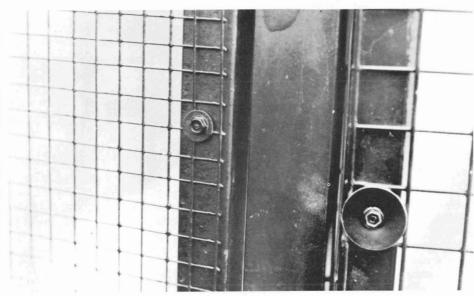
Special Interest Breeding Grass Parrakeets, and Rosellas Australian Grass Finches Birds aviary raised outdoors.

FOR SALE: All species of Australian Grassfinches and many varieties of African and Asian Finches, Rosellas, Kakarikis, and Grass Parrakeets

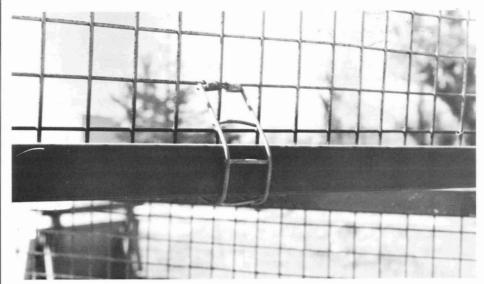
Call or Write: Jerry Jennings (213)

884-5476

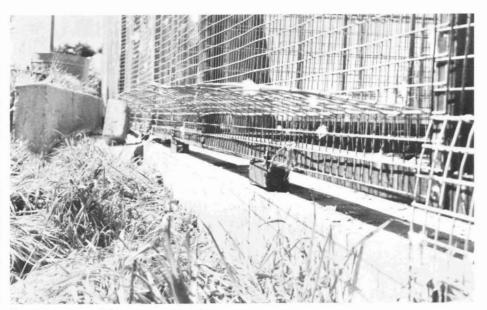
1803 Pontius Ave. Los Angeles, CA.90025



Self tapping screws with washers, 1/2" and 1" wire.

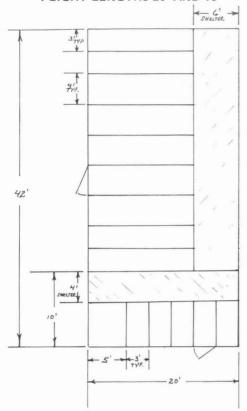


2nd method of fastening wire to tubes.



Swing open panel for hosing out debris.

STEEL FRAMED AVIARIES FLIGHT LENGTHS 20' AND 10'



lengths are not exact, but are usually ½" to 2" longer. I purchased a small lincoln arc welder that comes with all the accessories for about \$125, and spent about two hours relearning how to weld, which I used to do and which is easy to learn.

The floor of the flights would be concrete, which I had before and found a snap to clean, not to mention we've never been plagued with any health

woodscrews! While the front and back of the aviary were flat on the cement the welded joints were wirebrushed and then touched up with a can of spray problems. Laying a cement slab is not an easy task, so having a friend experienced in such work will pay dividends. I had done cement work before, so the job was not too difficult — just backbreaking! The first set of flights were to be built on a 20 ft. x 42 ft. foundation (see diagram). Once the slab is poured, it becomes your workbench.

The uncut tubing must first be cleaned of the protective oil coating, then layed side by side across two sawhorses for painting. I found flat black paint attractive and easily applied with a roller, turning the tubes 90 degrees after each side has been painted, the tubes can be painted quickly this way with a minimum of waste. The tubing is then cut to your desired lengths, and layed out on the slab just as you would the side of a house.

A large metal framing square is needed to make the angles correctly. I began to weld every seam and found it to be very time consuming.

If I were building a bridge, complete welding would be necessary, but for an aviary opposite sides of the tube is sufficient. I did get fancy and cut the door tube corners at 45 degree angles so I would not have open, exposed tube ends, but this is not necessary. I drew a rectangular outline of a door on the cement so all that had to be done was lay the tubes inside the outline and weld. Hinges were then welded to the doors and to the jambs — no more stripped out



Automatic water system, 10" dishes.

Bracken Bird Farm



Finches Cockatiels Lovebirds Parrots Quails Doves



WE BUY, SELL, TRADE
WHOLESALE
RETAIL

100 PLUS AVIARIES AT THIS LOCATION

714/792-5735

10797 New Jersey Street Redlands, CA, 92373

YOUR BIRD BOOK HEADQUARTERS

A GUIDE TO BETTER EGG HATCHING by J. Stromberg. \$4.95

ENCYC. OF COCKATIELS by G. Smith. 256 pgs. 48 in color . . \$9.95

PHEASANTS OF THE WORLD by Jean Delacour (1977) New revised edition \$35.00

PIGEONS & DOVES OF THE WORLD by D. Goodwin. 446 pgs. Very technical \$29.95

If you live in Wis. add 4% sales tax.
Please add 50c for postage & handling.

Please send \$1.00 (Refundable) for our new catalog on many bird subjects.

Lloyd Imig Bird Books 310 Maria Drive Dept. BW Wausau, WI. 54401 paint. Also, at this time pieces of scrap tube about 4" long, were welded about every 5 ft. along the bottom (I will explain this later). Wire was then attached with self-tapping screws, called "Hex-Tex", to the front, back, and doors. I did some detailing at this point by painting the front wire flat black with a roller. Flat black wire has a tendency to "disappear when looking through it, so your birds can be better observed. I have also painted the side wire flat black and have more than once glanced at the aviary and

was sure one of the birds was on the outside looking in, when in fact it was inside.

The front and back were then stood upright and welded using full 20 ft. spans top and bottom with a brace in the middle with a single upright. It is at this stage that you can realize the savings of steel over wood. The back wall needs no horizontal bracing and the roof is horizontally braced at the midpoint of each flight. The same flight in wood would need at least five vertical supports, three back horizontal braces, and another



Resident Greater Sulphur Cockatoos.

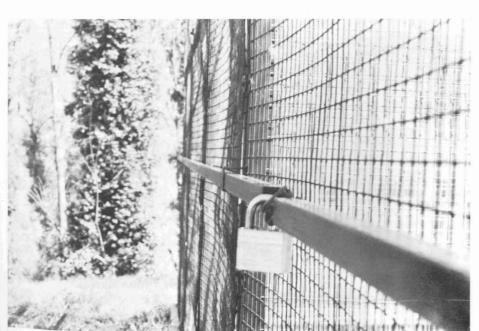
five in the top. The result is you use less than half the footage with metal than with wood, thus offsetting the 150% cost factor. The aviary is strong enough to walk across the top tubes without problems. The top, sides, and inside wire screen is then attached by merely pulling the wire tight over the framework and connecting with wire clips. It is not necessary to use any screws except at the bottom tubes. The double separator wall wire is kept apart by cutting two inch wide strips of scrap wire and clipping these between the two panels of screen



2" wire separator.



Resident Mollucaans



Single lock security bar.



Resident Blue and Gold Macaws.

on each wall. The wire on the sides and inside walls is brought down past the bottom tubes (which are elevated four inches from the ground) to the ground. A separate piece of wire about two inches wide is clipped and wires to cover the space under the lower bottom tubes of the front. The space below the bottom tube in the back, approximately six inches, is covered with a piece of wire that is hinged to the bottom tube with clips. When cleaning the aviary, the floor may be hosed out the back through the hinged flap (we have a great sunflower garden growing out there).

The roof, back, and sides of flights can have any conventional cover which can be attached with wire or the self-tapping screws. I am using aluminum sheets for privacy walls between the flights. These are slipped between the walls of the double wired flights. As an added touch for efficiency, a single faucet, water system is used that cleans and fills all the dishes at once, taking about 30 seconds each time. A timer-operated solenoid valve fills the waterers twice a day.

This particular aviary has given us fifteen large flights at a very minimum cost. Plans are to build forty more in this same manner. We have also planned pre-wired. disassembled flights that can be shipped

by truck and assembled by slip fit to any length at the site.

Any one who has ever constructed a wooden aviary and watched it disintegrate in a short time will agree that steel is definitely a better choice both in long term maintenance and, as I discovered, in cost -



 sell — trade Birds and All Related Bird Items SWAP MEET FOR THE BIRDS

• prizes • refreshments • demonstrations L.A. COUNTY FAIRGROUNDS Pomona, California building 8-A

free parking at white ave. & mckinley OPEN TO VENDORS FOR SET-UP February 17—9 AM-10 PM. — February 18—5 AM-9 AM. FEBRUARY 18, 1979

OPEN TO BUYERS - 9:30- AM

buyers: 50c (under 15—free)
bird clubs: free promotional booth — no sales — reservations only
vendors: \$40.00 space
(\$10.00 discount for a \$10.00 retail prize) lst come — lst served

RESERVATIONS/QUESTIONS (714) 985-7122

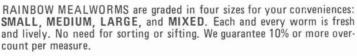
ehoiee golden mealworm

THE EXACT PRESCRIPTION FOR A HEALTHIER, HAPPIER, CONTENTED BIRD.



RAINBOW MEALWORMS contain 12 of the 16 elements that are found in living tissue and rich in vitamins A and B. Natural vitamin A is essential to your birds nutrition and growth. Vitamin B is required to maintain the nervous system.

RAINBOW MEALWORMS are a living food, clean and odorless. They should be kept under refrigeration at 40° to 48° (but not necessary). At this temperature they become dormant and maintain perfect condition for several months.



POSTAGE IS PREPAID. PROMPT SHIPMENT ALL YEAR AROUND. INSTRUCTIONS ON CARE ARE ENCLOSED WITH FIRST ORDER.



MEALWORM	BULK WHOLESALE PRICES	
COUNT	1,000 \$2.75	5,000 10.00
50\$3.60	2,000 5.25	10,000 19.00
100 5.40	3,000 6.75	20,000 35.00
500 16.80	- a	40,000 58.00
	' E A	

all little THE BEST FOR LESS

Mealworms are easy to eat! Birds Love 'em!





P.O. BOX 4525 126 E. SPRUCE ST. COMPTON, CA. 90220