

# **Hardware, Fitting & Finishing for Artists**

**Chris A. Paschke, CPF GCF CMG**

# Hardware Basics

## Approved

Screws

Brads

(w/heads)

D-Rings

D-Straps

Flangers

Wire

Offset Clips

Canvas Clips

Wall Hangers

Floreats

Cleats

## Not Approved

Screweyes

Sawtooth Hangers

Spring Clips

String, Cord

Wall Hangers

Thumbtacks

Nails

3M Adhesive

"S" hooks

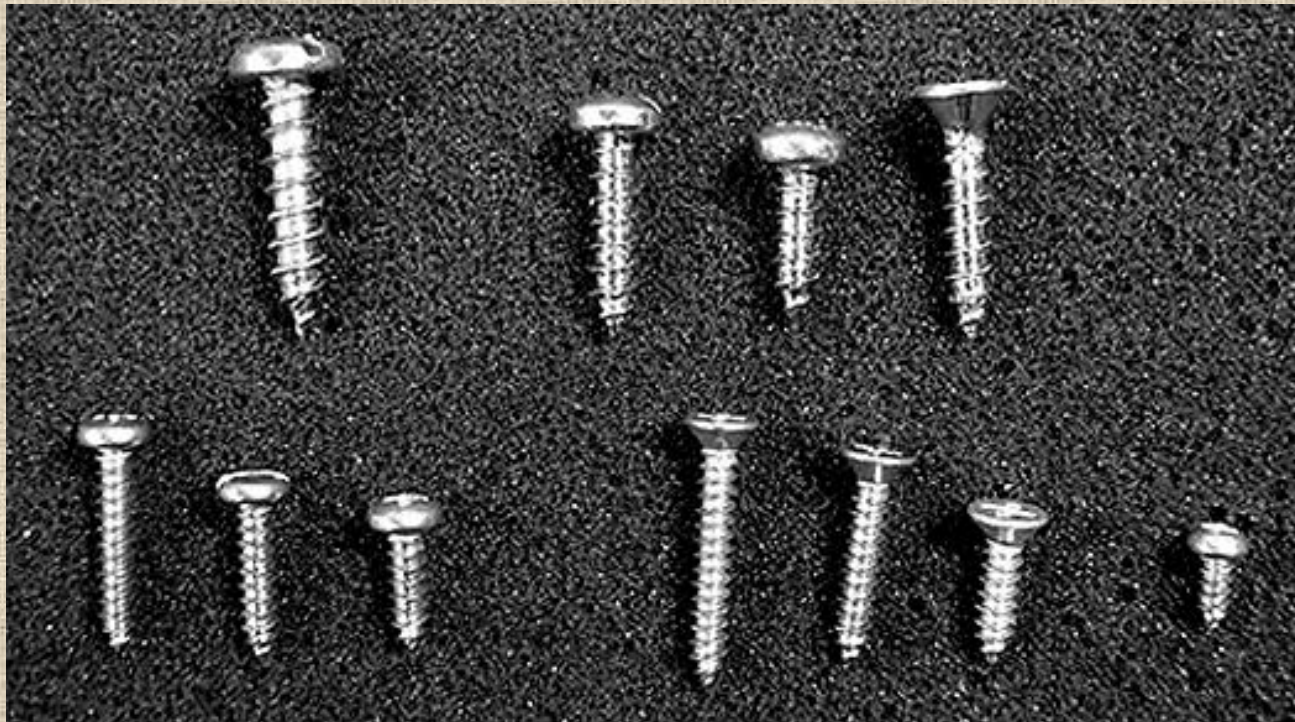
# Screw Configuration

Slotted drive, pan head; Combination drive; Phillips drive, flat head



# Screw Shaft Weight or Gauge

(L to R) Round head #8x3/4"; Pan Head #6x1/2; #6x3/8"; Flat head #6x5/6"  
Round head #4x4/5"; #4x1/2"; #4x3/8"; Flat head #4x3/4"; #4x5/8" #4x3/8"  
Round head tiny #3x1/4"



# Screw Types

## Wood screws

- courser pitch (fewer threads)
- unthreaded shank at top
- draws the wood layers snug

## Metal screws

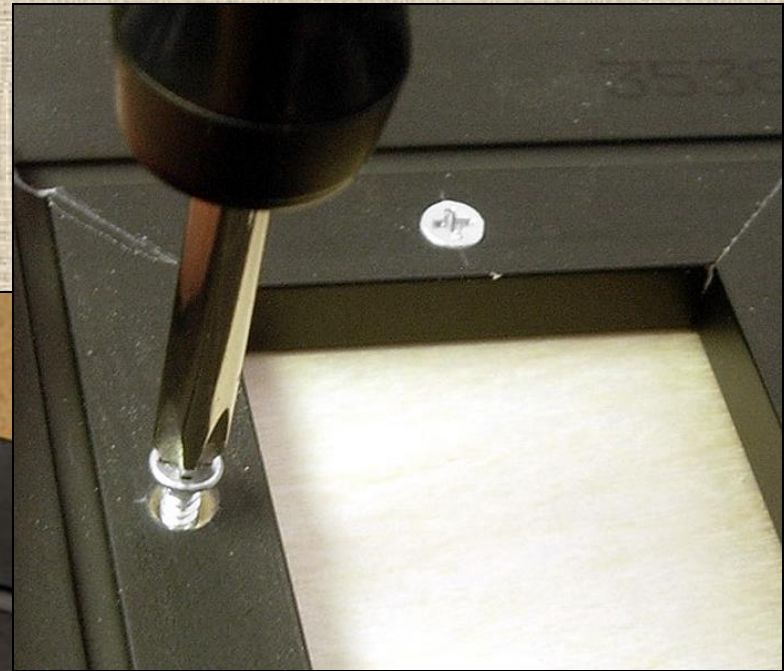
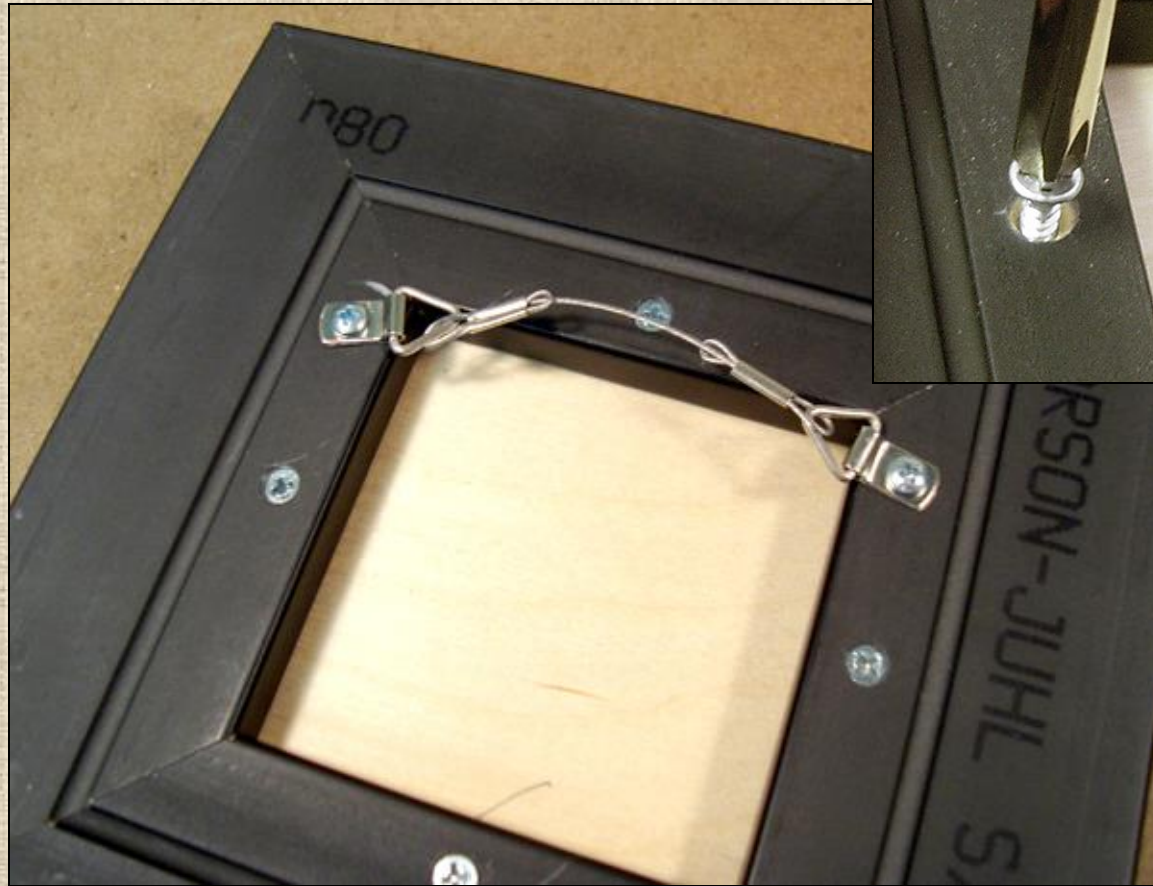
- threaded full length
- sharp threads
- sheet metal, plastic, wood
- for metal hardware to wood

## Machine screws (not pictured)

- finer threads
- stronger then wood screws
- blunt ended, used with nuts
- not used in framing



# Screw – Flat Head



# Screweyes

A screw with a looped head is called a screweye.

Also known as screw eye, eye screw or eye hook.



Not a good framing choice

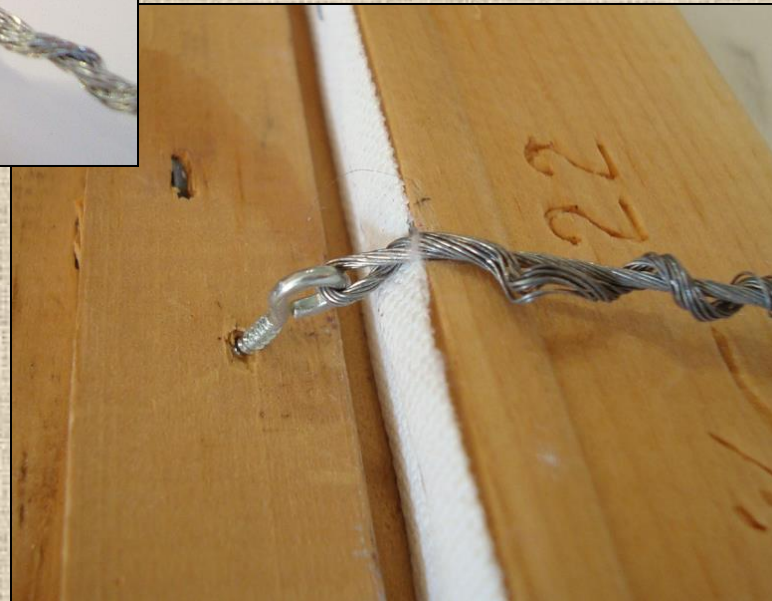
- Neck is weakest link
  - maple, oak, walnut hardwood installation can snap neck
- Eyes can split wood
- Create sawdust when inserted
- Stick out from wall and leave marks
- Can pull out of soft wood and MDF

# Screweyes



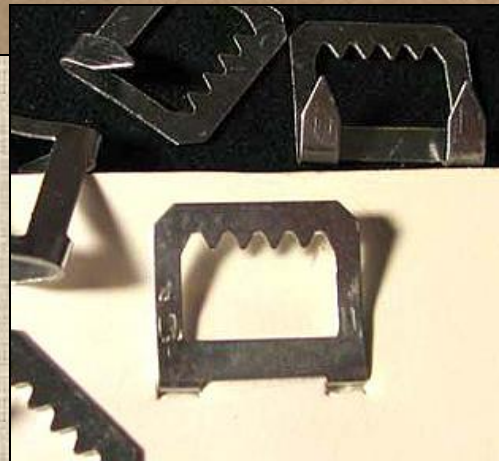
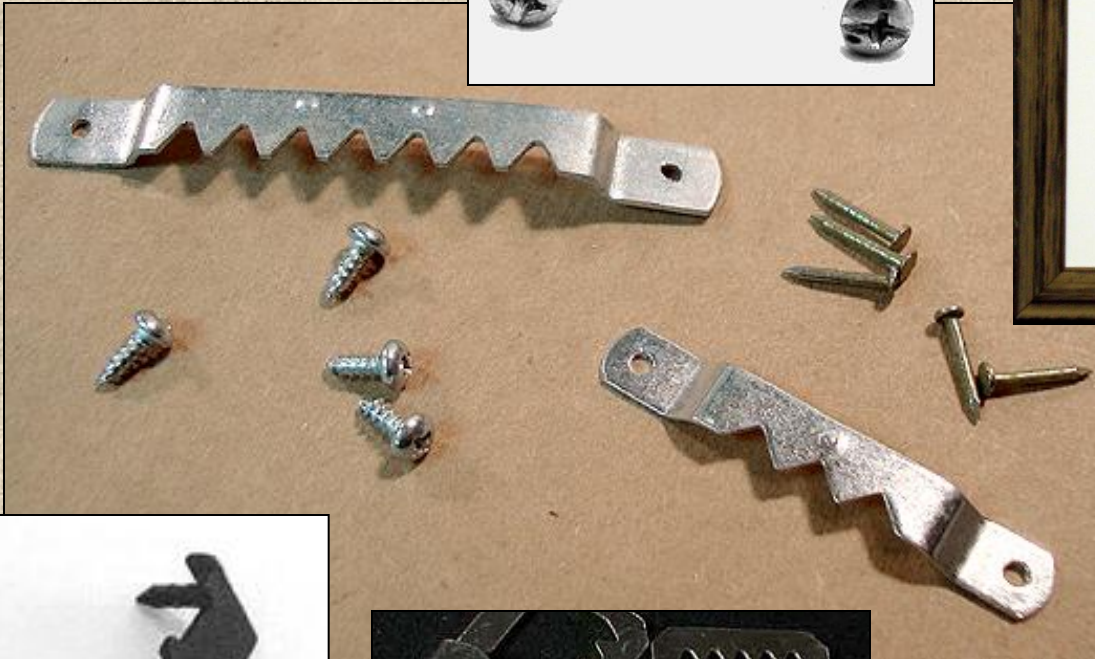
Never place an eye in a trench.

Never seat only a few threads  
in an attempt to level the eye  
with the back.





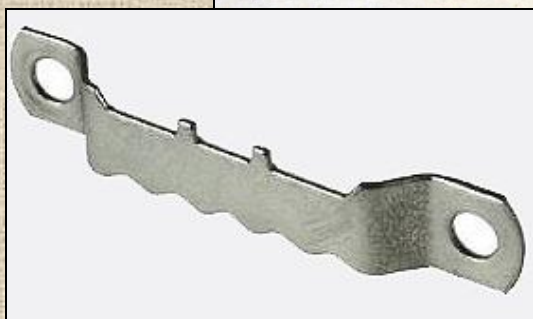
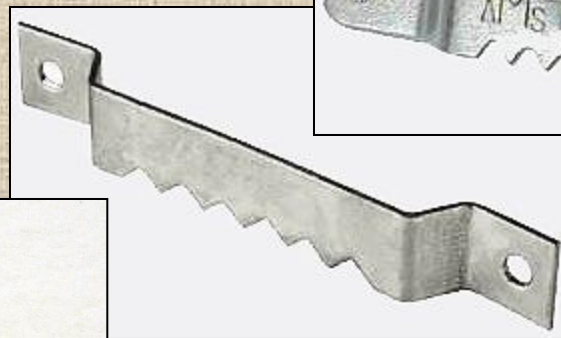
# Sawtooth



There's good  
sawtooth  
and bad sawtooth.

Galleries don't  
allow sawtooth on  
their art, so artists  
need to be taught  
not to use them.

# Sawtooth



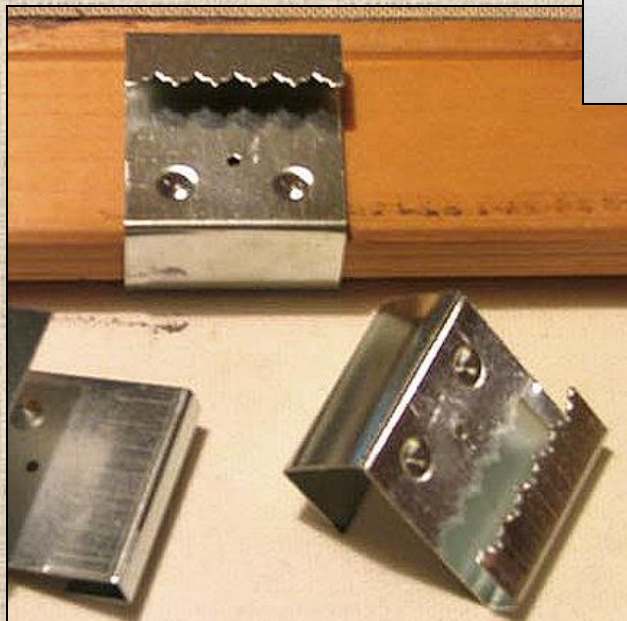
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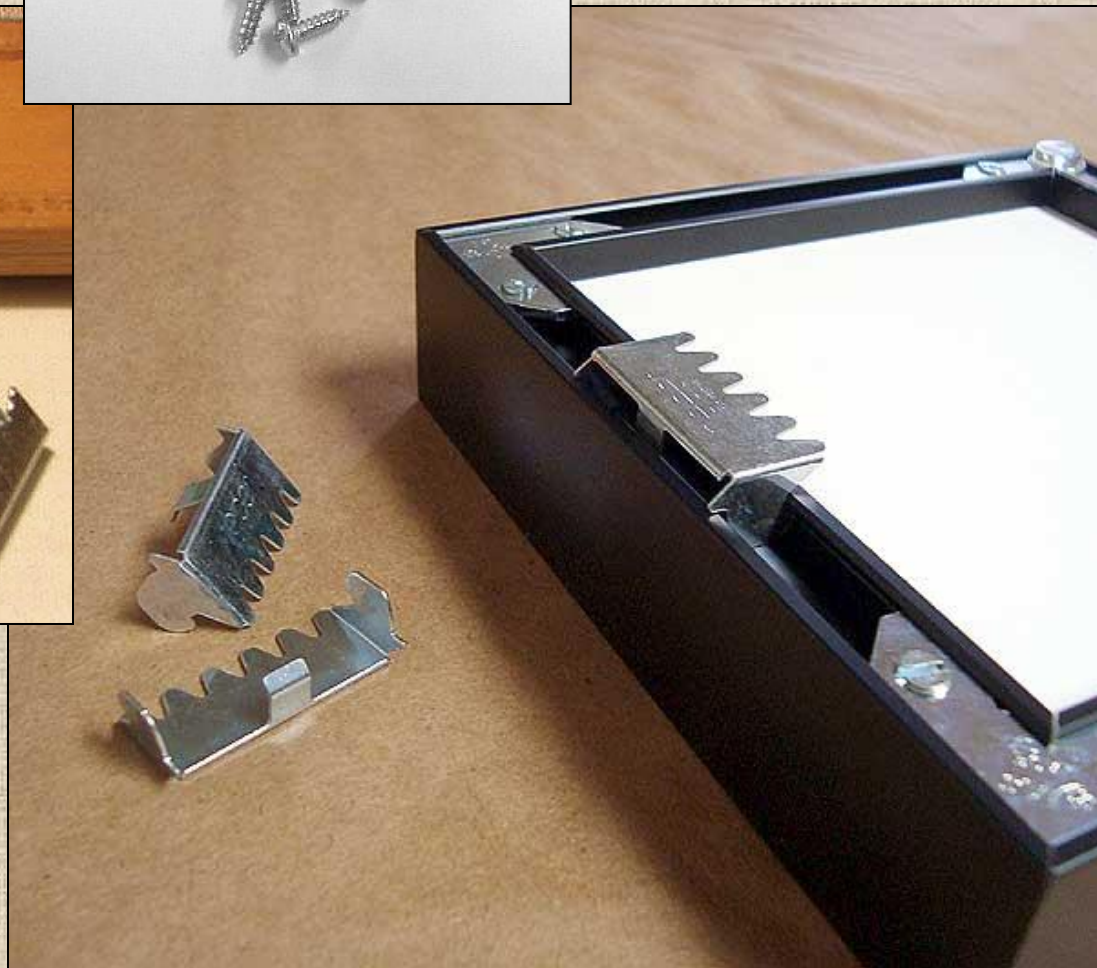


Mega Sawtooth  
uses 4- #8x1/2" screws.



Canvas sawtooth with screws

Nielsen snap-in sawtooth  
holds well.



# D-rings



The best D-ring hangers are created so the wire cannot open under weight.

D-ring hangers are one- to four- hole designed for #6 screws. Small triangular 1/4x3/4" uses #3 or #4 screws. Available in brass and nickel. These are lightweight for medium weight frames. Multiple screw holes allows for greater weight and stress distribution, even with soft wood.

# Heavy Duty and Strap Hangers

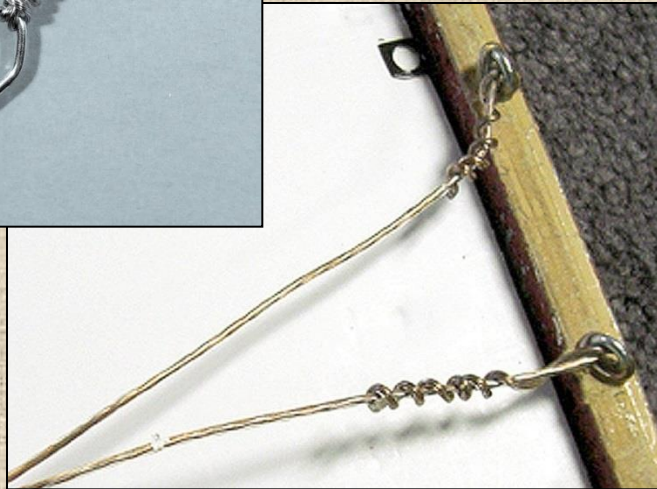


Heavy duty hangers are made of stronger steel or brass.

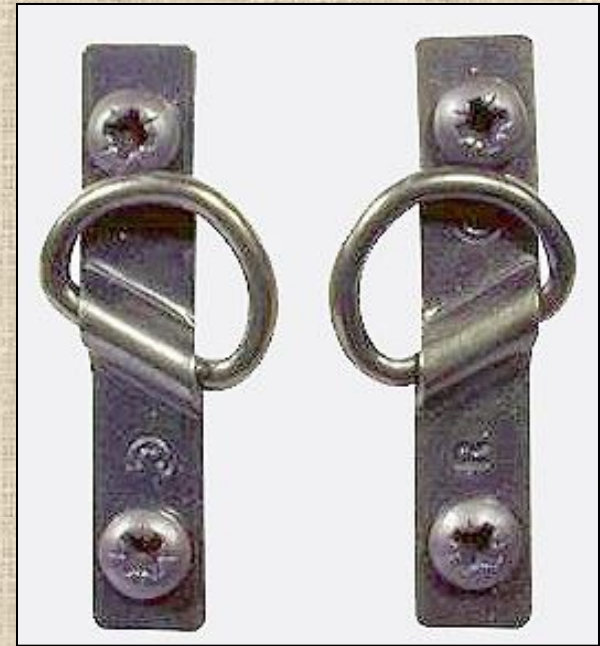
Use pan head screws #6x1/2" or #8x5/8"

Slotted heavy duty allows for height adjustment during installation.

# Strap Hangers



Two D-straps will strengthen a thin wire, but not like the bottom image.

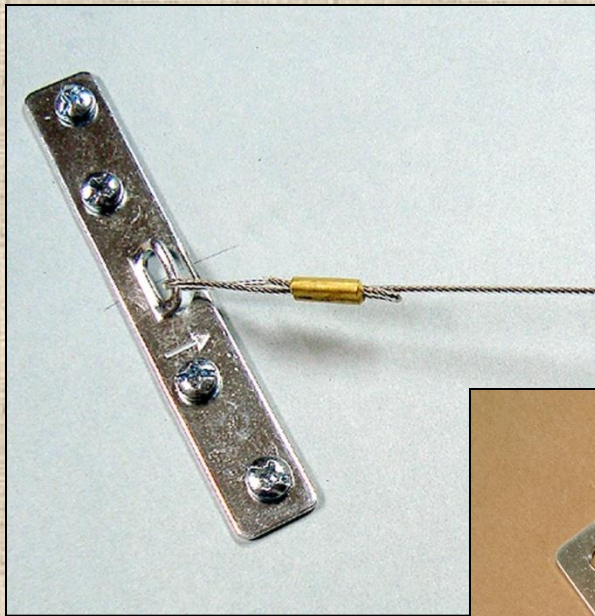


Angled D Hanger  
Steel bronze plated for narrow or soft wood frames that need reinforced attachment  
3/8" and 1/2"

# Super Steel Hangers

Also called Steel Plate Hangers  
Or Steel Anchor Plates

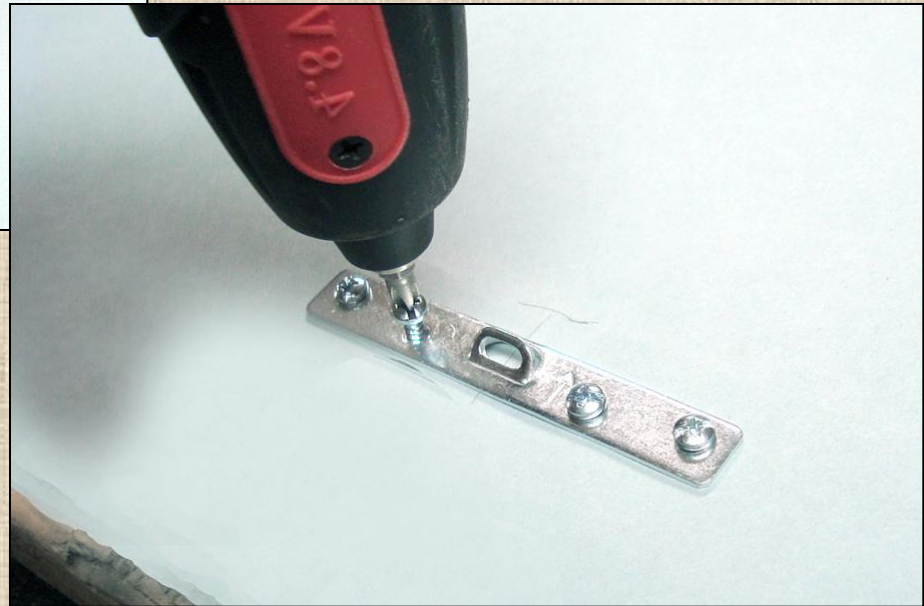
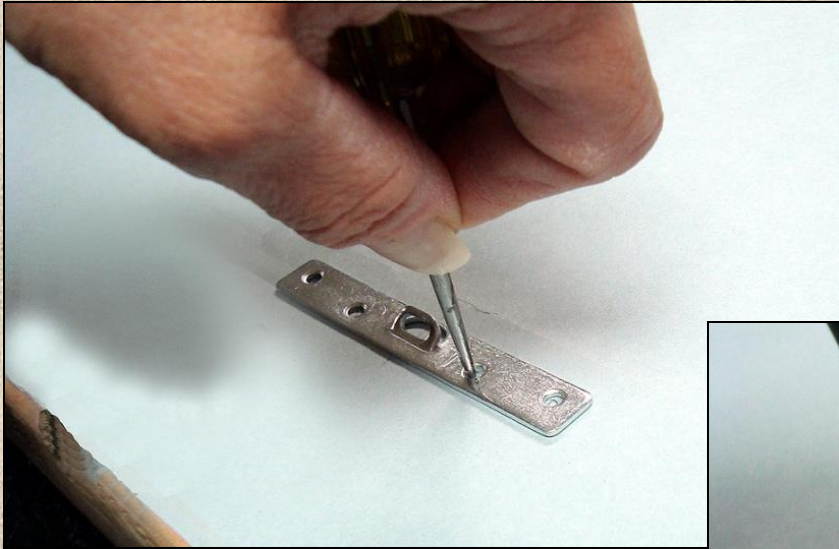
Heavy gauge steel  
with raised anchor for  
narrow moulding.



Available  
2" w/2-holes up to 50#,  
3-1/2" w/4-holes up to 100#,  
or 3-1/2" 8-holes UK

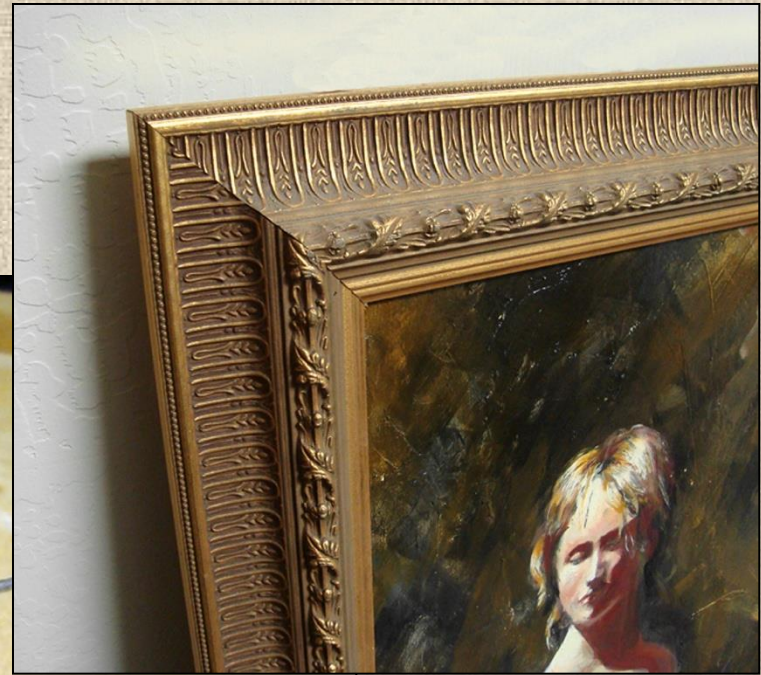


# Steel Hangers





# Strap Hangers



Will hold as long as the wood is not too soft, but will stand away from the wall too far and put stresses on all attachments.

# Flangers



Select over screw eyes or tiny triangular D-rings for very narrow moulding. Flangers have a 90° bend along its full length to grip the inside edge of the frame.

Narrow Flangers fit 1/4 - 1/2" wide up to 50#;  
Medium Flangers fit 1/2" – 1" wide up to 70#;  
Wide Flangers fit 1 – 4" wide up to 100#

# Wire - Type

Basic Braided; Stainless; Plastic Stainless Steel Coated;  
Copper Coated; Nylon Coated Crimp System



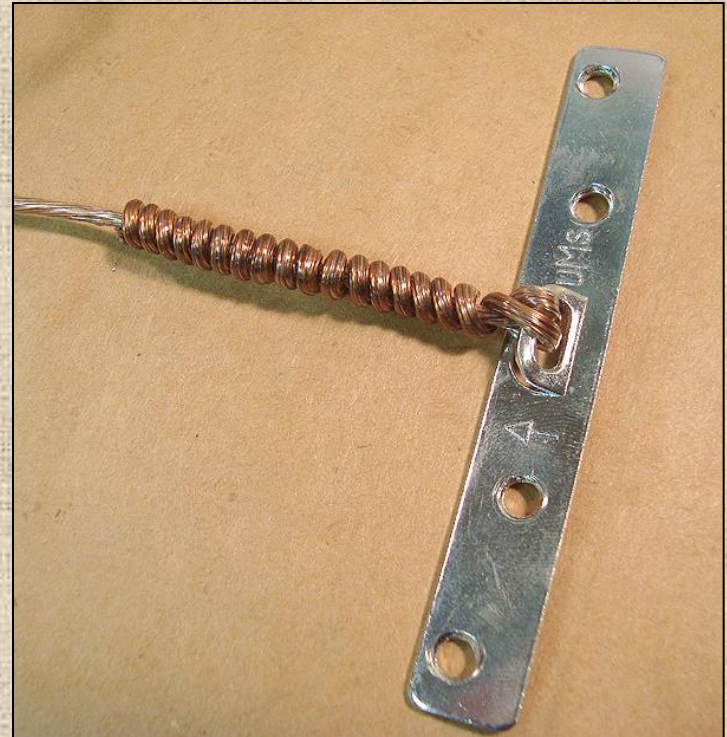
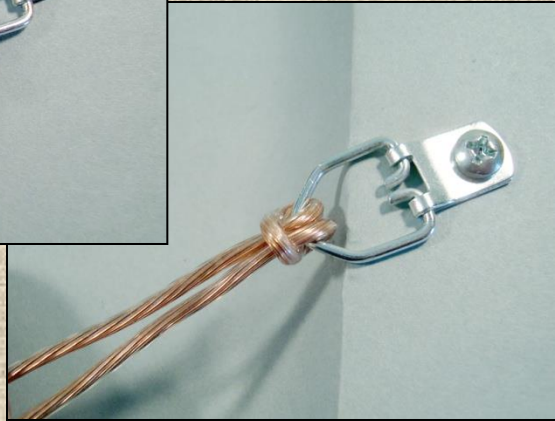
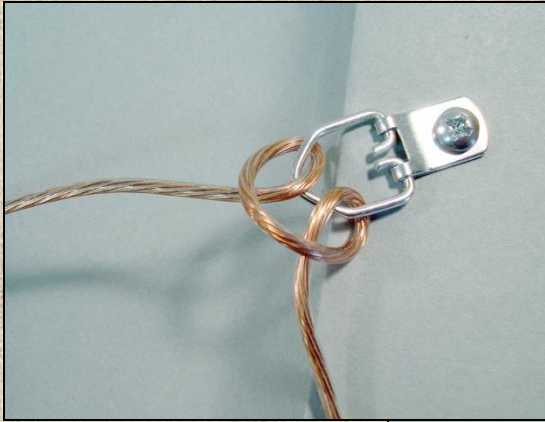
# Wire Weight Tolerances

Galvanized Braided			Coated Stainless Steel			Coated Copper/Gold			Sleeve System		
Size	Max Wt	Break Wt	Size	Max Wt	Break Wt	Size	Max Wt	Break Wt	Size	Max Wt	Break Wt
#2	12#	50#	#2	15#	40#	#2	15#	37#	#2	30#	80#
#3	16#	68#	#3	20#	68#	#3	20#	50#	#3	40#	100#
#4	20#	85#	#4	25#	75#	#4	25#	62#	#4	60#	150#
#5	24#	98#	#5	43#	105#	#5	30#	85#			
#6	28#	115#	#6	50#	150#	#6	45#	170#			
#7	32#	130#							#7	90#	250#
#8	36#	145#	#8	60#	170#						
			#9	90#	250#						

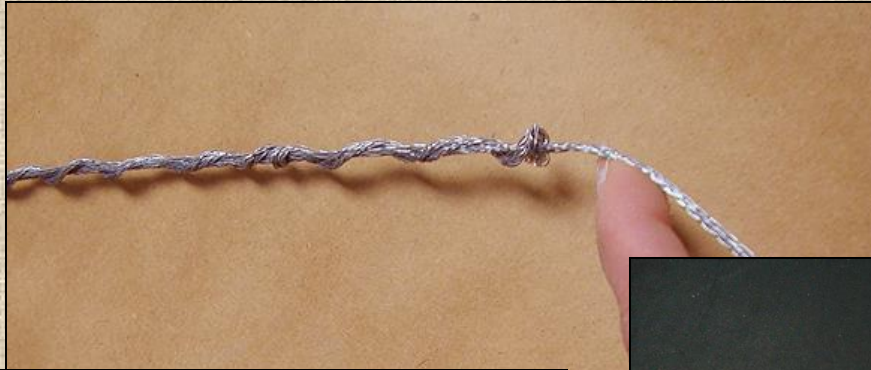
This chart reflects suggested and average weights and size numbers. Maximum frame weight varies with wire manufacturer, style and coating. Braided suggests 4x the frame weight to equal break point, while stainless is only 3x allowing to accommodate heavier frames.

# Wire - Larks Head

Affix wire with a lark's head knot then twist 8-12 times and compress against bottom of knot.

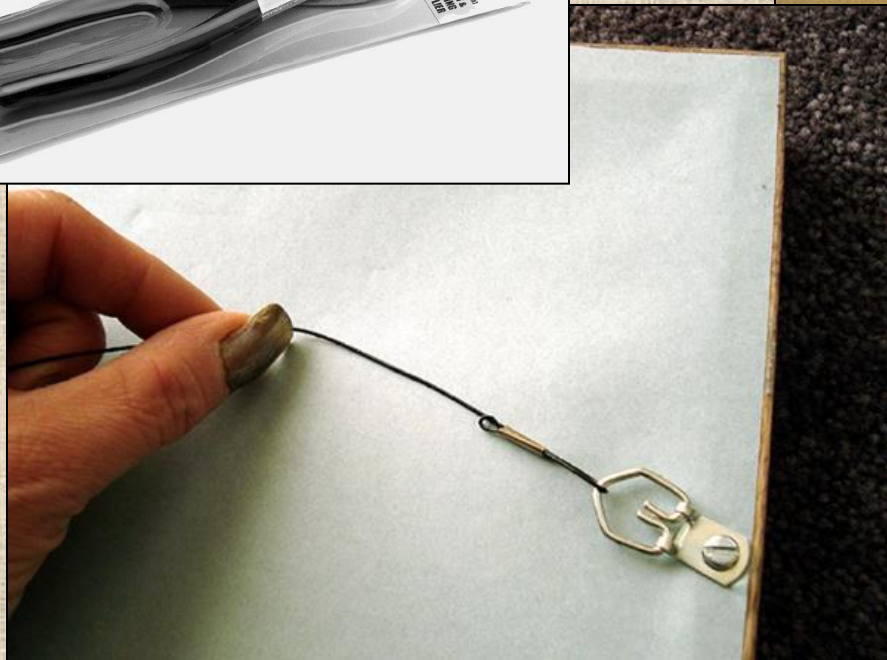
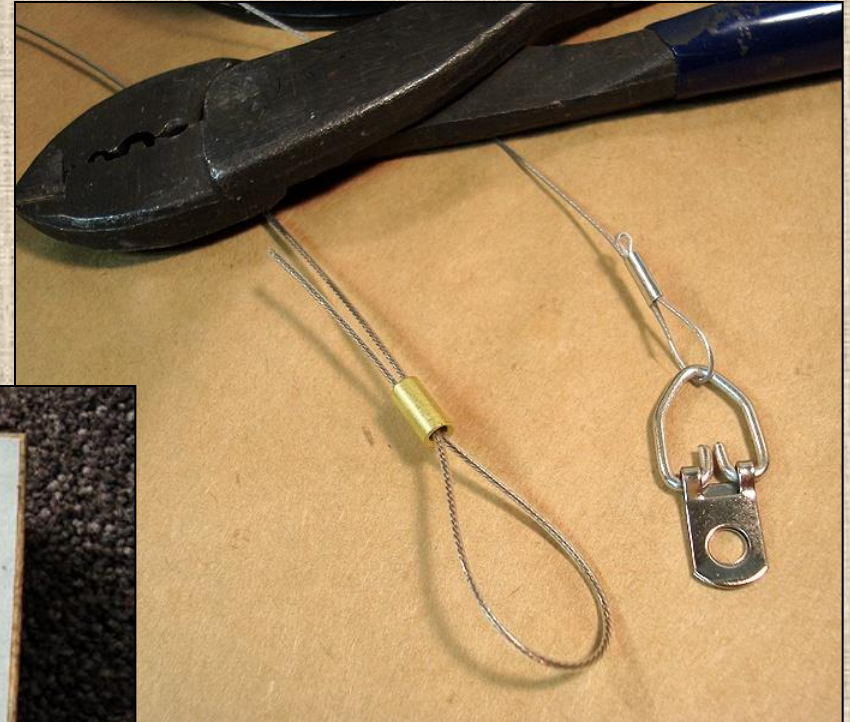


# Wire Attachment - what not to do

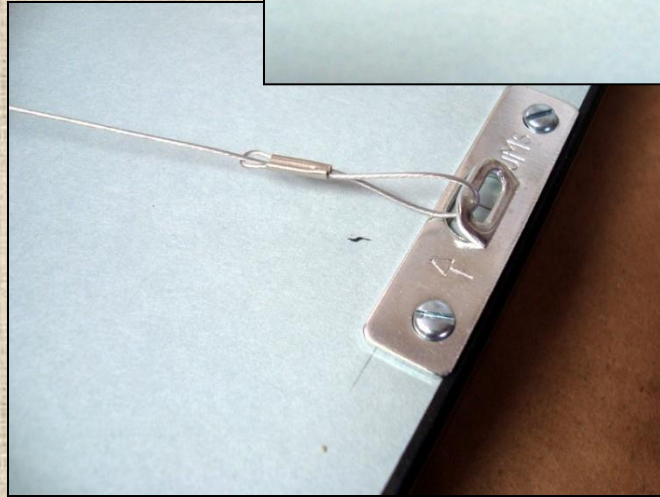
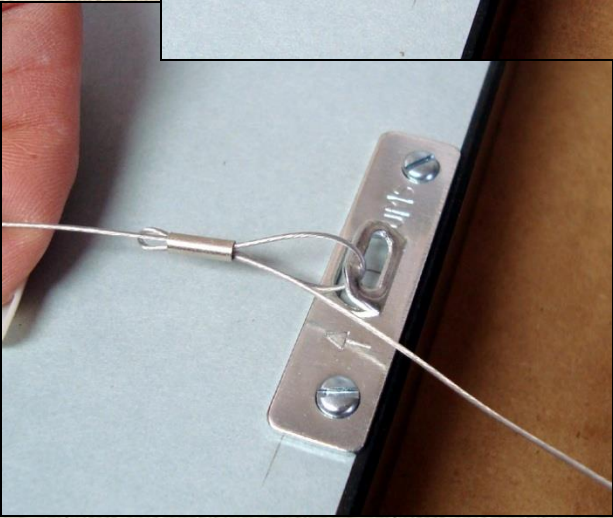
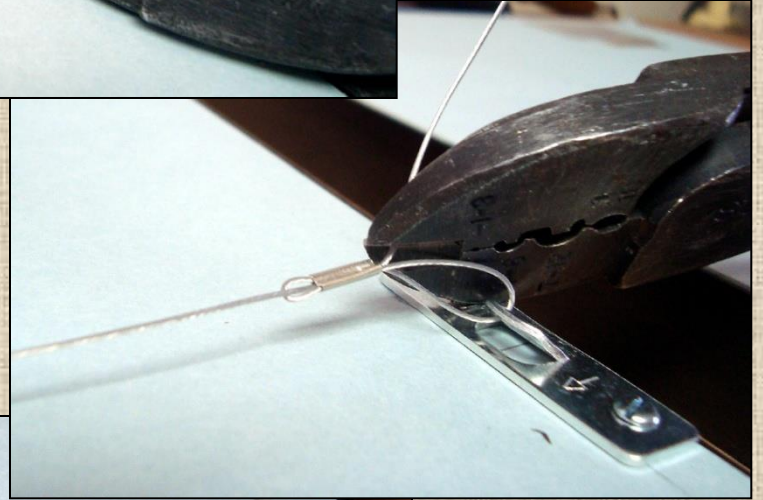
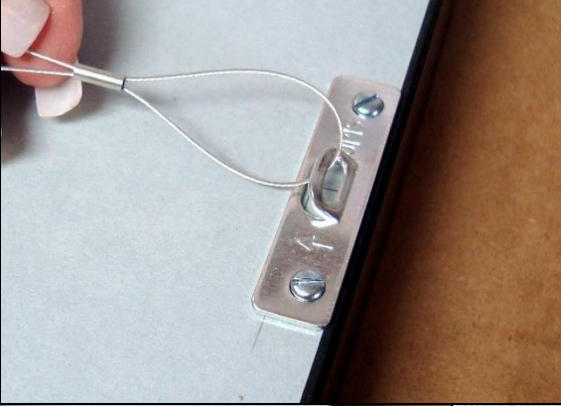
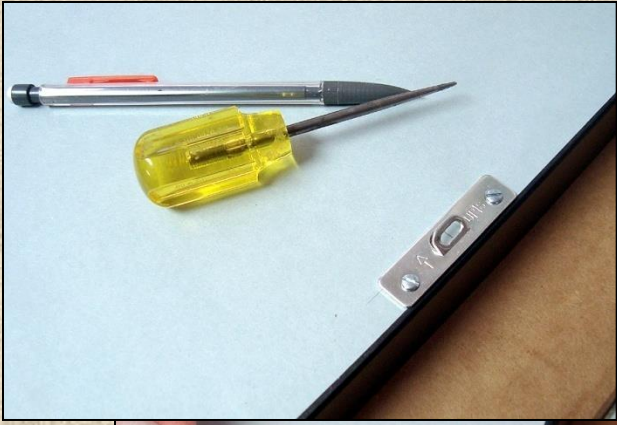


...or shoe or boot laces

# Wire – Crimper System

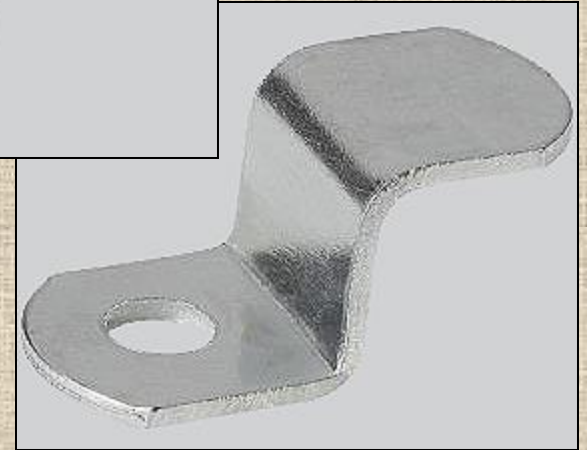
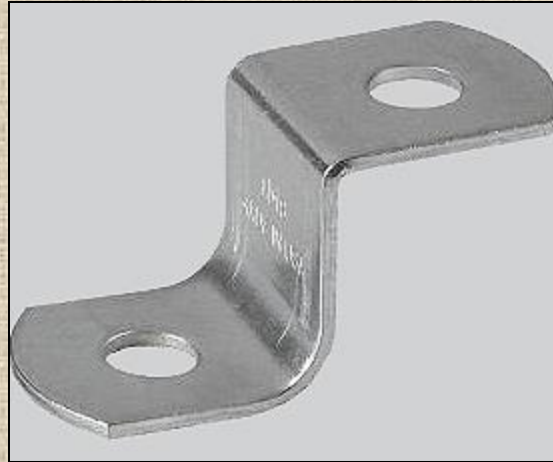
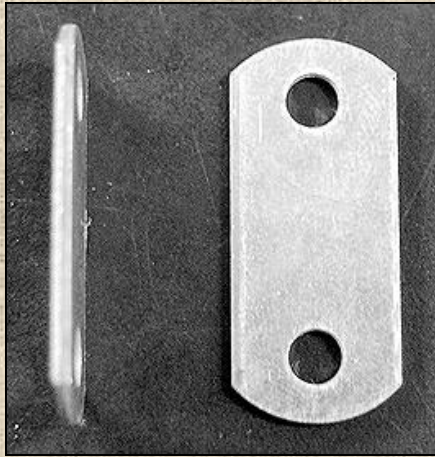
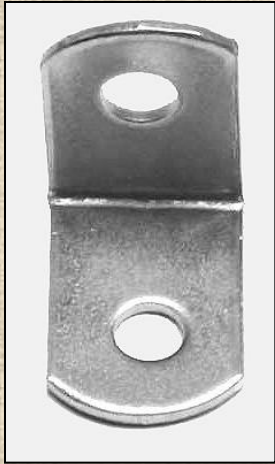


Sevalon, Eagle Claw,  
Surflon (Kwik-Wire)



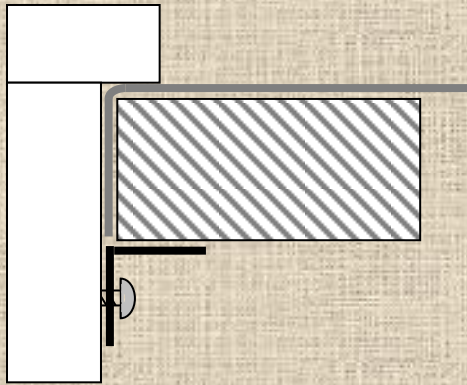


# Offset Clips

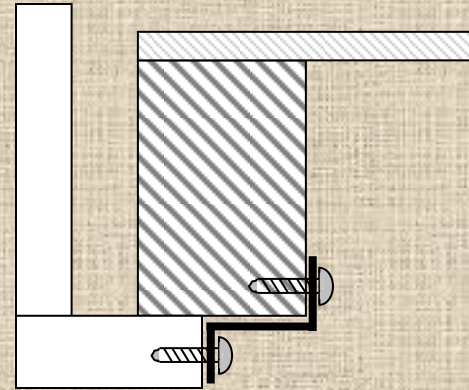


Available flat, 1/8", 1/4", 3/8", 1/2", 3/4", 1" and 1-1/4" depths with or without holes both ends.

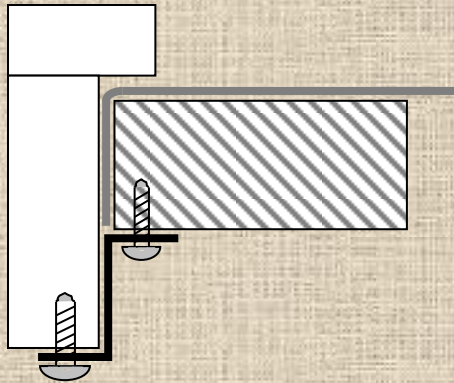
For #6 pan or roundhead screws.



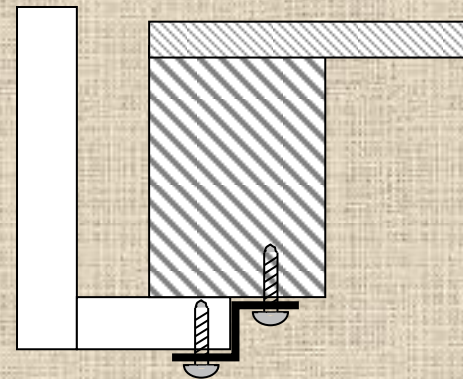
A stretched canvas in a deep cap frame held by 90° corner plate.



A cradled box in a deep float frame with 1/4" to 1/2" offset clip.

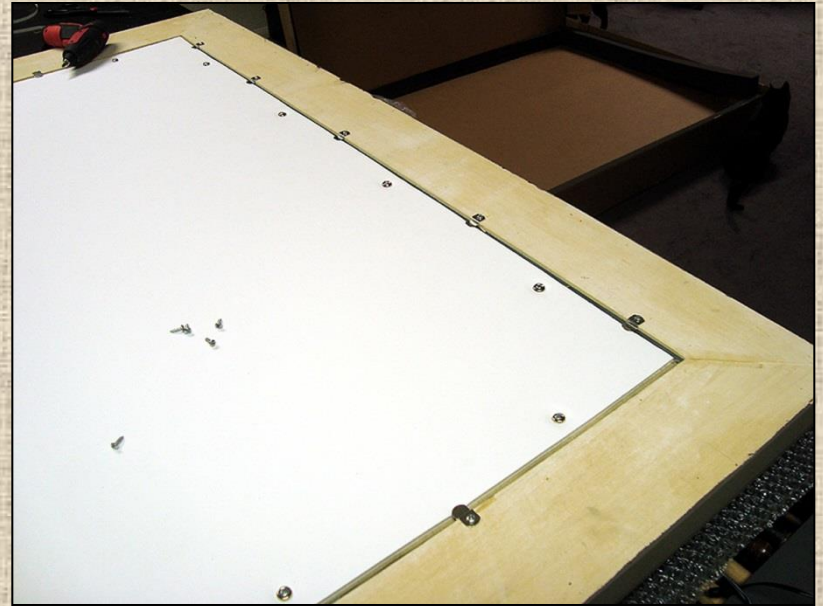
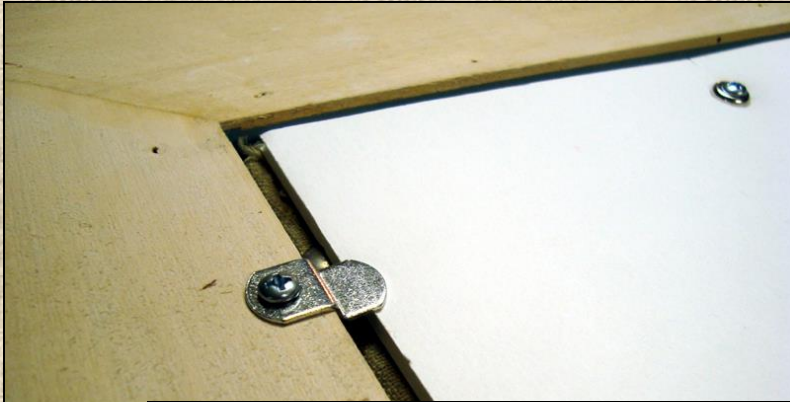


Stretched canvas in deep cap is held away from lip by 3/4" offset. The screw head touches the wall.



A cradled box in a float frame is held in place with 1/2" clip.

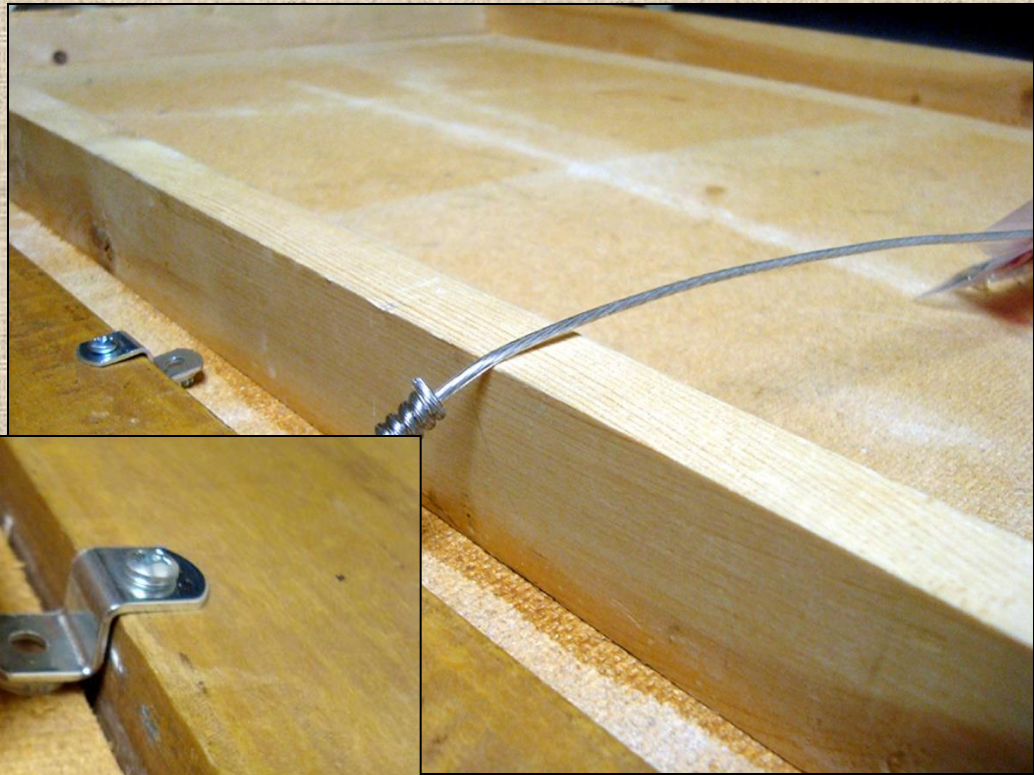
# Offset Installation



## Backing a Stretched Canvas

Clips are placed every 8-10" to hold the foamboard backed painting.

# Offset Use



Artwork is 1/8" hardboard

- no drilling or screws
- clips with bumpers
- wire over support

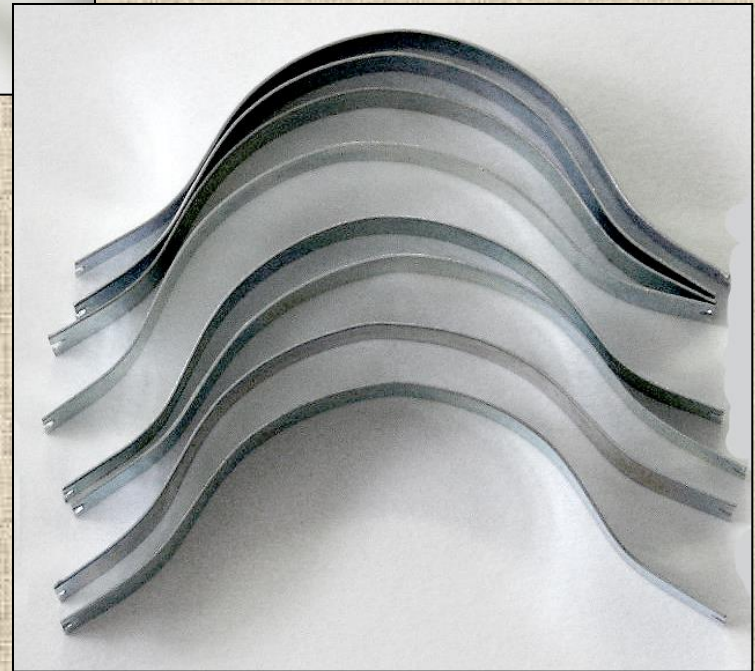
# Offset Use



## Repair of artist frame

- stacked liner + frame
- sticks out back
- clips with bumpers

# Spring Clips

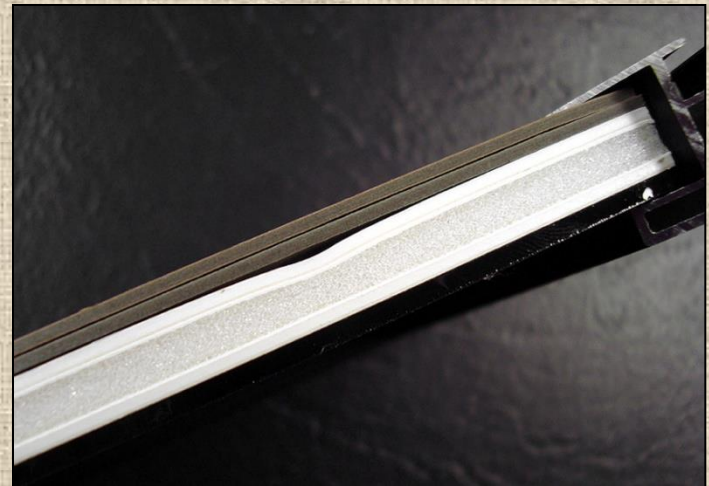


# Spring Clips



Best used for stretched canvas in metal frame, but can damage matted art.

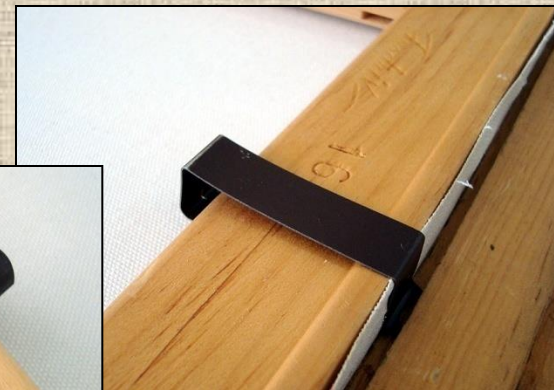
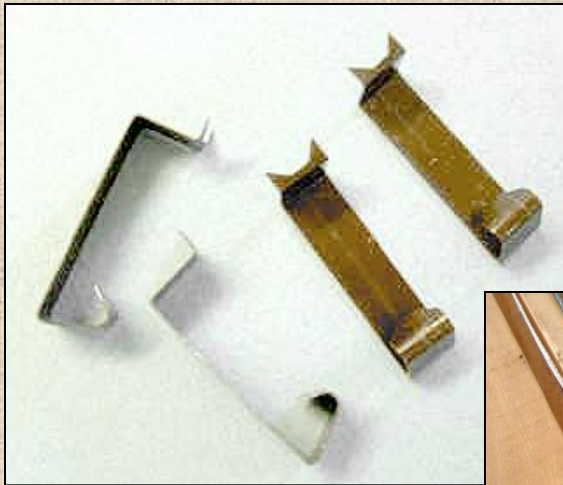
Humid environments allows expansion between the clips which can create a wavy window mat.



# Canvas Clips

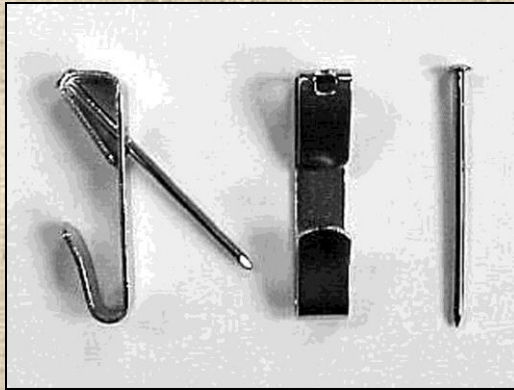
Also called Bar Clips—are designed for holding stretched canvases in frames. One-piece steel spring clips fit 1-1/2” to 1-3/4” bars with no adhesives or other hardware.

Not totally secure, unprofessional, rubs on the wall, and doesn't lay flat.



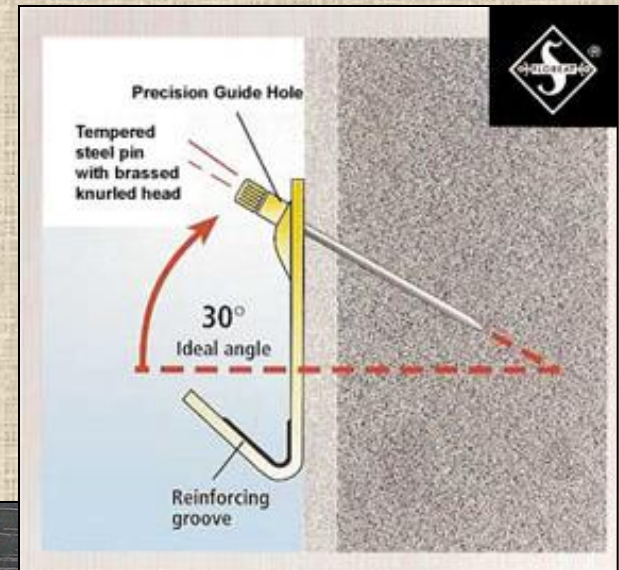


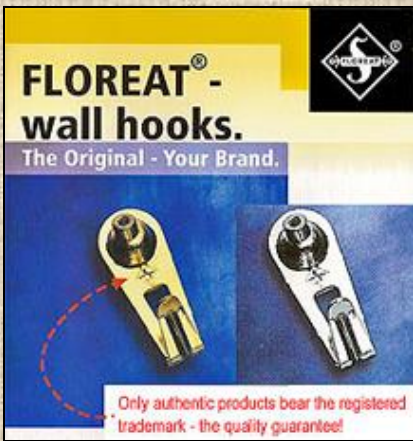
# Wall Hangers – Standard S Hook and Twist



# Hangers – 30° Nail Slant

Nail should be held in correct position.

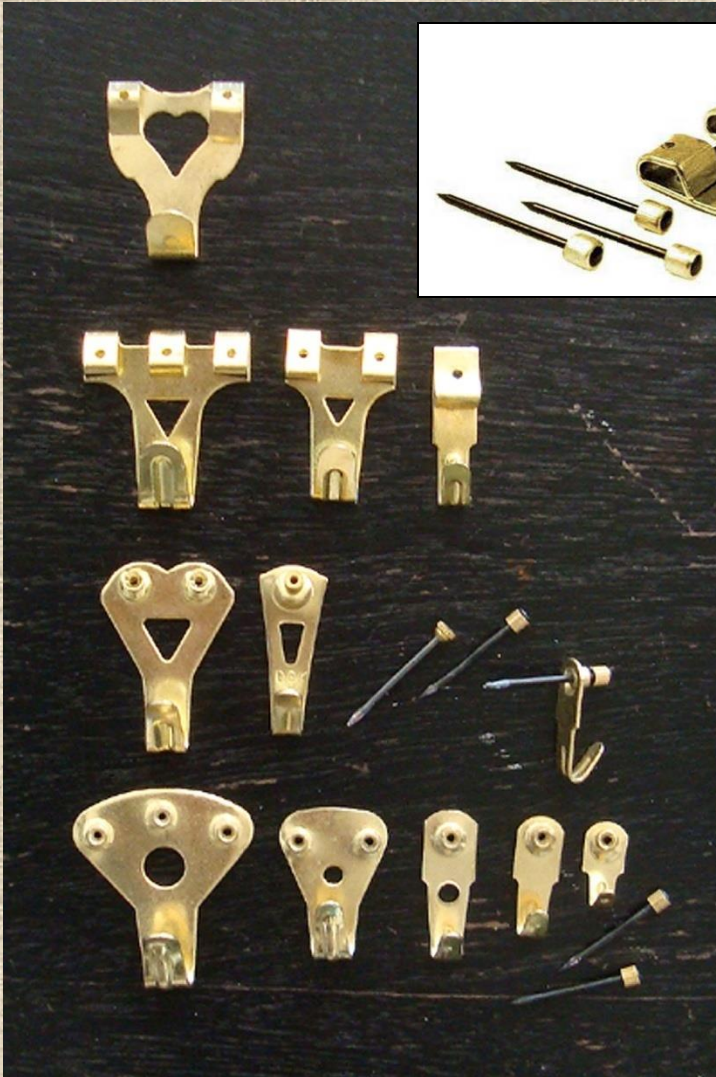




**Ziabicki Deluxe Floreat**  
75#, 50#, 30#, 20#, 10#

**Le Crochet - 20#, 40#, 60# 80#, 100#**

# Hangers – Floreat Style



Ziabicki Floreat & Le Crochet

Floreat knock-offs

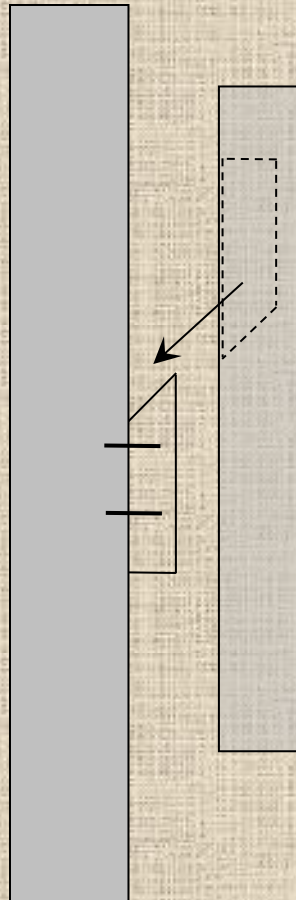
Unknown

Moore

OOK 50# and 30#

rektangl, UK

# Cleats – French Cleat

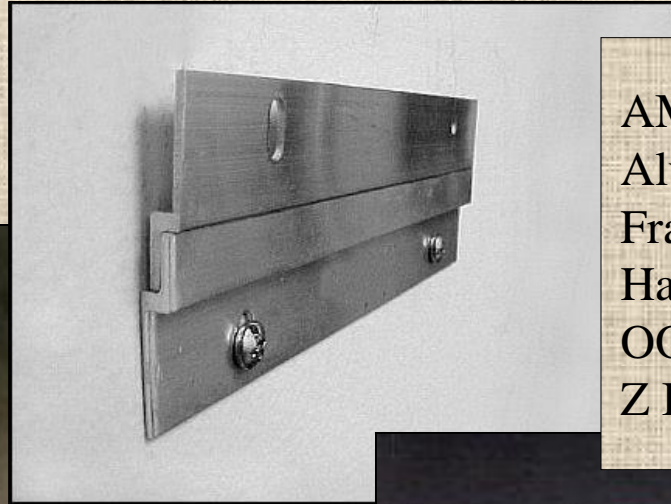
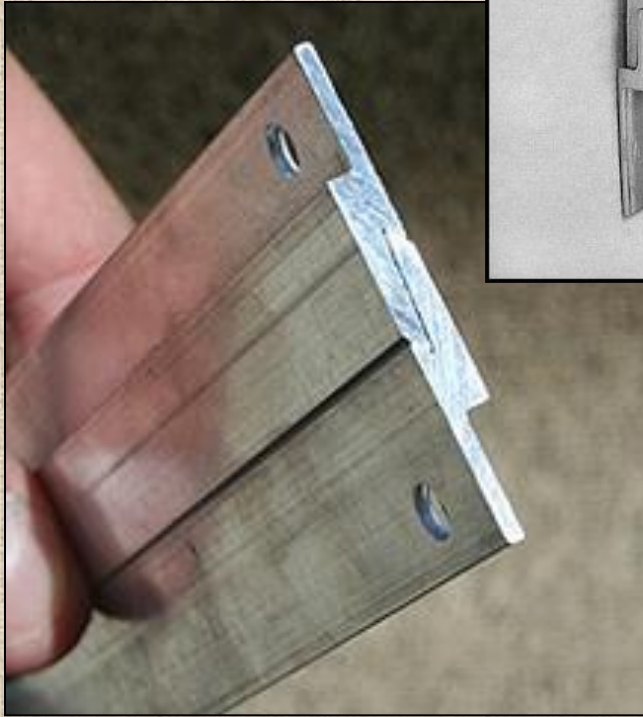


If an open box...  
Top bar is mounted  
inside box with  
bevel cut bottom.

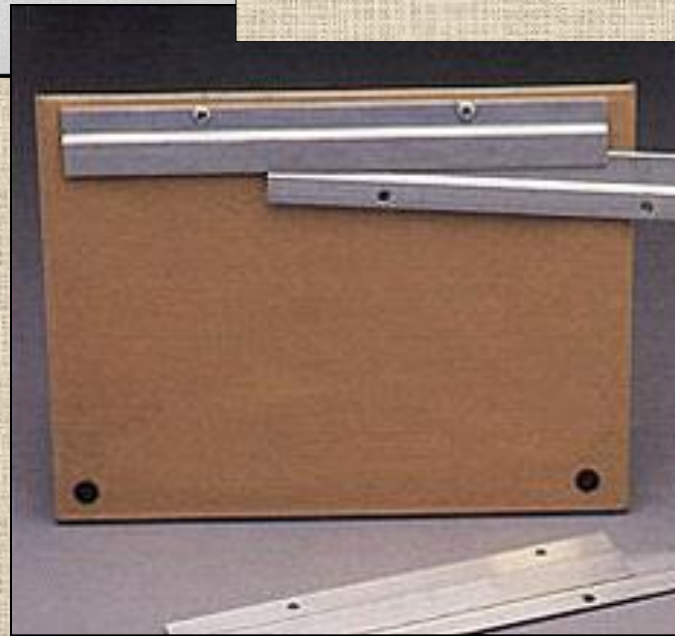
Mount piece is  
narrow enough  
to fit inside the  
box mounted  
to the wall.



# Cleats – Commercial Metal

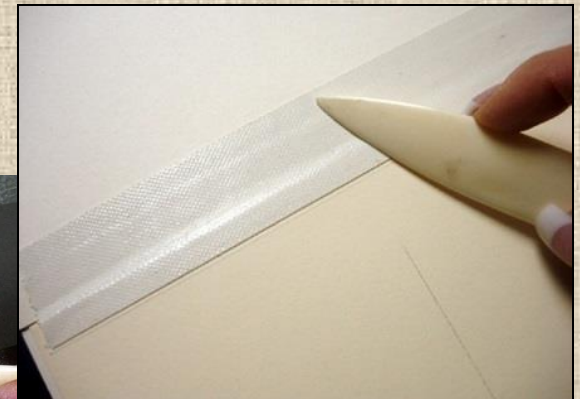
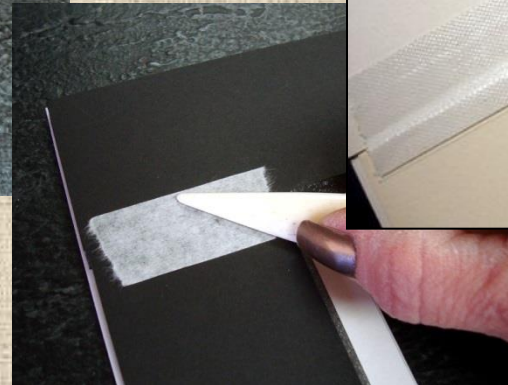
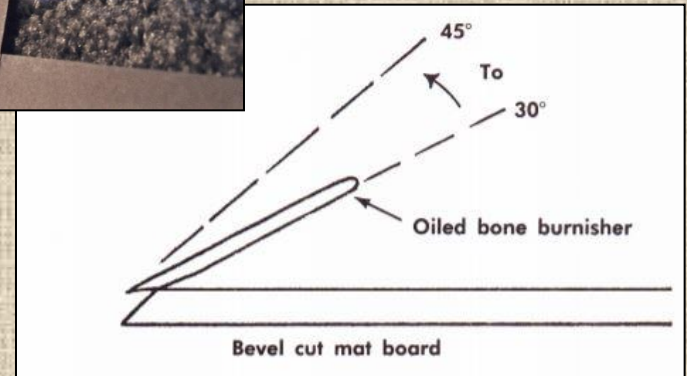


AMS EZ Bar System – up to 90#  
Aluminum Cleat Bars – up to 200#  
Framework Heavy Duty – up to 72”  
Hangman Z Hangers – up to 400#  
OOK Hangman – up to 200#  
Z Bar – up to 400#



# Basic Tools

Bone burnishers are a must to activate pressure-sensitive tapes and smooth edges.



# Point Drivers



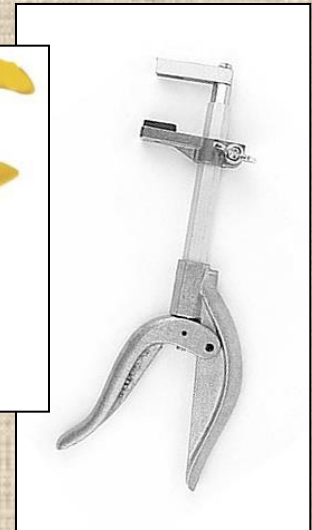
Tools to assemble and hold the art in the frame package.



Fletcher Point Drivers



Brad Pushers





# 3M ATG Gun

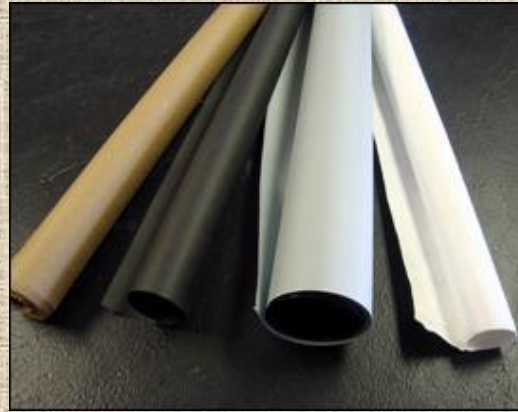


ATG gun and 924 1/2" wide tape for dust covers (backing paper).

# Fitting & Papering

Dust cover rolls shown:

Kraft, Black Tyvek, Lineco Blue, Lineco White



- Line back of frame with ATG tape.
- Align square edge of paper to edge of frame.
- Pull paper taut to opposite end and rub to hold.
- Then rub each side, beginning from center.
- Lay ruler 1/8" inside edge of frame and trim excess paper with sharp X-Acto knife.



# Finishing

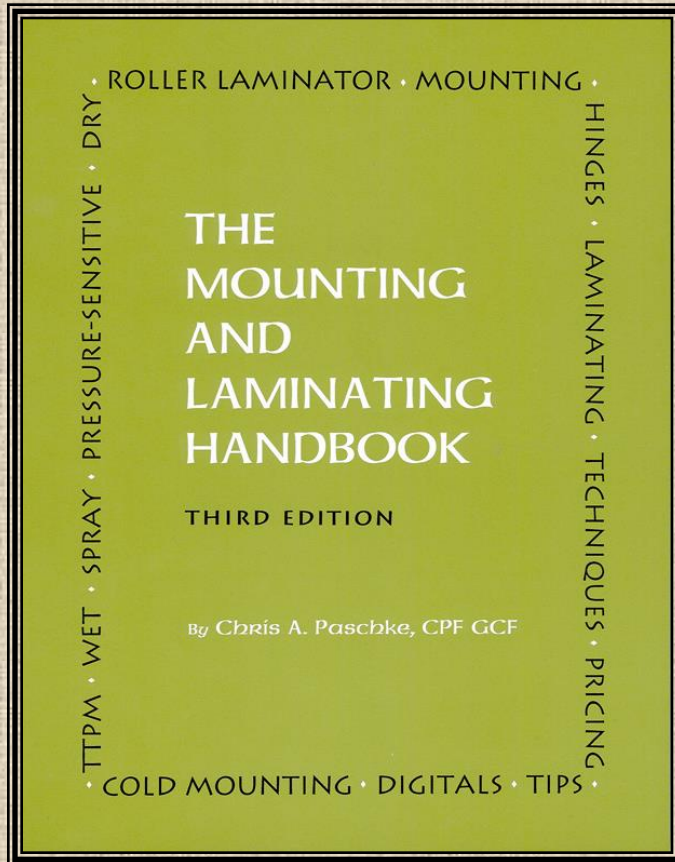


- Hardware is 1/3 from top.
- Wire should be 1/2 way between hardware and top.
- Tighter lays flatter, but puts more stress on side of frame.



Metal frames may have linen tape, but no paper.

# The Mounting And Laminating Handbook, 3rd edition



This third edition includes mounting methods; adhesives and substrates; step-by-step techniques; wet, spray, pressure-sensitive, and dry mounting.

Though written for the trade, artists and photographers have been buying it for decades to help them learn the what to do and what not to do when mounting their art.

# *Paschke Online*

*Article Archive and Reference Library*

[www.DesignsInkArt.com/library.htm](http://www.DesignsInkArt.com/library.htm)

“Do You Know Hardware?” *Mastering Mounting*, PFM December 2012

“Frameless Framing” *Mastering Mounting*, PFM October 2009

“Level, Flush and Secure” *Mastering Mounting*, PFM June 2013

“Versatile Offset Clips” *Mastering Mounting*, PFM August 2012

“Wall Hangers & Cleats” *Mastering Mounting*, PFM April 2013

“Wire & Hangers” *Mastering Mounting*, PFM February 2013



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