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BEKA, INC. -- FLOOR LOOM INSTRUCTIONS

JANUARY, 1984 VERSION
(FILE NAME "LOOM1/INS")

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FOR ANY QUESTIONS NOT ANSWERED HERE CONTACT YOUR LOCAL BEKA,
LOOM DEALER, OR :

BEKA, INC.
1648 GRAND AVENUE
ST. PAUL, MN 55105
PHONE (612) 222-7005

BE SURE TO USE YOUR LOOM SERIAL NUMBER IN ANY
CORRESPONDENCE

IT IS RECOMMENDED THAT YOU CAREFULLY READ THIS ENTIRE
MANUAL TO FAMILIARIZE YOURSELF WITH THE MANY FEATURES
OF YOUR NEW LOOM. SEE PAGE 14 FOR A SUMMARY OF LOOM
FEATURES

UNPACKING YOUR NEW LOOM.

MATERIALS NEEDED: 1 PHILLIPS SCREWDRIVER
A SCISSORS OR SIMILAR CUTTING TOOL
2 TO 4 STRONG FRIENDS

THE ASSEMBLED LOOM ARRIVES IN A LARGE, STURDY SHIPPING CONTAINER, AND WILL REQUIRE FROM 2 TO 4 PEOPLE TO MOVE SAFELY. THE CRATE IS APPROXIMATELY 34 INCHES WIDE, AND SO CAN ONLY BE MOVED THROUGH A DOORWAY 36" WIDE. IF YOUR DOOR IS NARROWER, PLAN FOR A TIME AND PLACE WHERE THE CRATE CAN BE OPENED OUTSIDE, PRIOR TO MOVING YOUR LOOM IN.

THE CRATE IS ASSEMBLED WITH WOOD SCREWS, AND REQUIRES ONLY A SCREWDRIVER WITH A PHILLIPS HEAD TO COMPLETELY DISASSEMBLE IT. START BY REMOVING THE TOP. THEN REMOVE THE FRONT. AT THIS POINT THE LOOM CAN BE TILTED UP OUT OF THE BLOCKS HOLDING ITS LEGS IN PLACE, AND CAREFULLY LIFTED & SLID OUT OF THE CRATE. TAKE CARE NOT TO DAMAGE THE LEGS IN THE PROCESS. THIS SHOULD BE DONE ONLY IF YOU WISH TO LEAVE THE REMAINDER OF THE CRATE ASSEMBLED, POSSIBLY FOR USE AS A STORAGE CONTAINER. IT IS RECOMMENDED FOR EASIER, SAFER HANDLING THAT THE CRATE BE FULLY DISASSEMBLED. UNSCREW THE BACK OF THE CRATE, AND THEN REMOVE BOTH ENDS. YOU CAN NOW HAVE EASY ACCESS TO THE LOOM, AND CAN LIFT AND MOVE IT TO ITS DESIRED LOCATION.

USING A SCISSORS OR OTHER SUITABLE CUTTING TOOL, REMOVE ALL THE STRAPING TAPE SECURING ACCESSORIES AND MOVING PARTS ON THE LOOM, TAKING CARE NOT TO SCRATCH OR OTHERWISE DAMAGE THE LOOM IN THE PROCESS. CUT ALL THE TAPE SECURING THE FOOT TREADLES AND REMOVE THEM.

THE REED OR REEDS PROVIDED WITH YOUR LOOM ARE USUALLY COATED WITH A THIN LAYER OF CLEAR OIL BY THE MANUFACTURER TO PREVENT IT FROM TARNISHING IN STORAGE. BE SURE TO WIPE IT CLEAN BEFORE THREADING THE REED (FOR EXAMPLE, USE A SOFT RAG WITH A DINNER KNIFE TO GET INTO EACH SLOT).

CAREFULLY CHECK THE LOOM FOR ANY SHIPPING DAMAGE. NOTIFY YOUR SHIPPER AND LOCAL BEKA LOOM DEALER IMMEDIATELY IF ANY IS FOUND.

PAGE 2

LOOM SETUP

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UNPACKING YOUR NEW LOOM.

MATERIALS NEEDED: 1 PHILLIPS SCREWDRIVER
A SCISSORS OR SIMILAR CUTTING TOOL
2 TO 4 STRONG FRIENDS

YOUR BEKA LOOM IS FULLY ASSEMBLED AT THE FACTORY. ALL PARTS ARE OF THE HIGHEST QUALITY; CAREFULLY INSPECTED AND ASSEMBLED TO PROVIDE A PROPERLY ALLIGNED FRAME WITH PARALLEL BEAMS, SO IMPORTANT IN A GOOD LOOM. ALL HARDWARE HAS BEEN CHECKED, INSTALLED AND PROPERLY TIGHTENED, AND ALL MOVING PARTS HAVE BEEN ADJUSTED FOR SMOOTH ACTION.

THE ASSEMBLED LOOM ARRIVES IN A LARGE, STURDY SHIPPING CONTAINER, AND WILL REQUIRE FROM 2 TO 4 PEOPLE TO MOVE SAFELY. THE CRATE IS APPROXIMATELY 34 INCHES WIDE, AND SO CAN ONLY BE MOVED THROUGH A DOORWAY 36" WIDE. IF YOUR DOOR IS NARROWER, PLAN FOR A TIME AND PLACE WHERE THE CRATE CAN BE OPENED OUTSIDE, PRIOR TO MOVING YOUR LOOM IN.

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THE REED OR REEDS PROVIDED WITH YOUR LOOM ARE USUALLY COATED WITH A THIN LAYER OF CLEAR OIL BY THE MANUFACTURER TO PREVENT IT FROM TARNISHING IN STORAGE. BE SURE TO WIPE IT CLEAN BEFORE THREADING THE REED (FOR EXAMPLE, USE A SOFT RAG WITH A DINNER KNIFE TO GET INTO EACH SLOT).

CAREFULLY CHECK THE LOOM FOR ANY SHIPPING DAMAGE. NOTIFY YOUR SHIPPER AND LOCAL BEKA LOOM DEALER IMMEDIATELY IF ANY IS FOUND.

ASSEMBLING THE FOLDING REAR LEGS.

(SEE PHOTOS #1 & #2)

YOUR LOOM IS DESIGNED WITH A WARP BEAM AND BACK BEAM ASSEMBLY THAT FOLDS IN TOWARD THE CASTLE SO THAT THE LOOM IS NARROW ENOUGH TO PERMIT MOVING IT THROUGH MOST DOORWAYS. IN CONJUNCTION WITH THE FOLDING BEAMS, A PAIR OF REMOVABLE OUTRIGGER LEGS WITH ADJUSTABLE LEVELING FEET ARE PROVIDED FOR ADDED LOOM STABILITY WHEN THE FOLDING ASSEMBLY IS EXTENDED OUT FOR USE. THESE ARE ATTACHED TO THE BOTTOM INSIDE FACE OF THE CASTLE SIDES, AND FOR SHIPMENT ARE ATTACHED IN REVERSE. REMOVE THE WING NUTS SECURING EACH LEG.

REVERSE EACH LEG SO IT PROJECTS OUT UNDER THE WARP BEAM ASSEMBLY, WITH THE ADJUSTABLE FOOT DOWN. SECURE IT WITH THE TWO BOLTS BY PASSING EACH BOLT THROUGH THE CASTLE LEG FROM THE OUTSIDE, THEN THROUGH THE OUTRIGGER LEG, AND FINALLY SECURE THEM WITH A WASHER AND WING NUT, TIGHTENING THE NUT BY HAND. FINALLY, SCREW THE ADJUSTABLE LEVELING FEET DOWN UNTIL THEY CONTACT THE FLOOR.

IF YOUR WORKING AREA HAS AN UNEVEN FLOOR, YOU MAY NEED TO PLACE SOME PADDING UNDER ONE OR MORE OF THE LEGS OF THE LOOM TO LEVEL IT PRIOR TO ADJUSTING THE FEET ON THE OUTRIGGER LEGS. IT IS IMPORTANT THAT THE LOOM BE LEVEL AND RESTING FIRMLY ON THE CASTLE SIDES AND FRONT LEGS FOR BEST PERFORMANCE. YOU MAY WANT TO PUT PADS UNDER THE LOOM LEGS SIMPLY TO PROTECT YOUR FLOOR. BOTH LEVELING AND THE USE OF PADS WILL PREVENT "WALKING" OF THE LOOM AS YOU WEAVE.

FOLDING OUT THE WARP BEAM ASSEMBLY:

(SEE PHOTO #3)

THE WARP BEAM AND BACK BEAM ASSEMBLY IS SHIPPED IN THE FOLDED POSITION, AND IS HELD IN PLACE BY TWO UPPER SUPPORT ARMS. EACH ARM IS SECURED TO THE BEAM ASSEMBLY WITH A BOLT THROUGH A HOLE IN THE END OF THE ARM, AND IS HELD IN THE FOLDED POSITION BY A BOLT THROUGH A HOLE IN THE MIDDLE OF THE ARM WHICH SECURES IT TO THE CASTLE SIDE. TO MOVE THE ASSEMBLY OUT, FIRST LOOSEN ALL 4 WING NUTS SECURING THE TWO ARMS. COMPLETELY REMOVE THE TWO BOLTS HOLDING THE CENTER OF THE ARMS TO THE CASTLE SIDES, BEING CAREFUL TO HOLD THE BEAM ASSEMBLY IN THE PROCESS SO IT WILL NOT ACCIDENTALLY FALL WHEN RELEASED. NOW SWING THE BEAM ASSEMBLY OUTWARD UNTIL YOU CAN PLACE THE TWO BOLTS THROUGH THE HOLES IN THE ENDS OF THE SUPPORT ARMS AND AGAIN INTO THE HOLES IN THE CASTLE SIDES. REPLACE THE WASHERS AND WING NUTS, AND FIRMLY HAND TIGHTEN ALL 4 WING NUTS.

AT THIS POINT YOUR LOOM IS FULLY ASSEMBLED AND READY FOR
THE INSTALLATION OF HEDDLES.

PREPARATION FOR WEAVING

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THE FOLLOWING SECTION IS INTENDED TO FAMILIARIZE THE WEAVER WITH SOME OF THE FEATURES AND CONVENIENCES OF THE BEKA LOOM AS THEY RELATE TO WARPING AND TIEING UP OF THE LOOM. IT IS CERTAINLY NOT MEANT TO SERVE AS A BASIC COURSE IN MULTI-HARNESS WEAVING. FOR THOSE NOT FAMILIAR WITH SUCH MATERIAL, A WEALTH OF INFORMATION IS AVAILABLE IN PUBLICATIONS CURRENTLY ON THE MARKET, AS WELL AS FROM LOCAL WEAVING SCHOOLS, TEACHERS, AND OTHER EXPERIENCED WEAVERS WHO ARE OFTEN QUITE WILLING TO ADVISE BEGINNERS. IF THESE SOURCES ARE NOT AVAILABLE TO YOU, CONTACT BEKA, INC. AND A LIST OF APPROPRIATE REFERENCES CAN BE PROVIDED.

THE FIRST TASK YOU HAVE IS TO INSTALL THE HEDDLES PROVIDED WITH THE LOOM. YOU MUST DECIDE HOW MANY HEDDLES YOU WANT TO INSTALL, AND ON WHICH OF THE HARNESSES. MANY WEAVERS INSTALL ALL OF THE HEDDLES AT ONCE, EVEN THOUGH SOME ARE NOT USED FOR A PARTICULAR PROJECT. THIS IS A MATTER OF PERSONAL PREFERENCE. ONCE THE HEDDLES ARE IN PLACE, A PROJECT MUST BE PLANNED AND AN APPROPRIATE WARP PREPARED. THE WARP IS THEN PLACED ON THE LOOM. FINALLY, THE HARNESSES MUST BE TIED TO THE TREADLES WITH THE REQUIRED PATTERN OF TIE-UPS, AND WEAVING CAN BEGIN. THE INSTALLATION OF HEDDLES, THE TIE-UP PROCEDURE, AND THE WARPING PROCESS CAN BE RATHER TEDIOUS AND REQUIRE COMFORTABLE ACCESS TO THE CENTRAL CASTLE ASSEMBLY, WHICH CONTAINS THE HARNESS FRAMES. EACH PROCESS WILL BE DISCUSSED SEPARATELY.

ACCESS TO THE HARNESS ASSEMBLY FROM THE REAR:

THE EASIEST ACCESS IS FROM THE REAR. SIMPLY REMOVE THE BOLTS SECURING THE FOLDING WARP BEAM ASSEMBLY TO THE UPPER SUPPORT ARMS AND SWING THE ASSEMBLY DOWN, RESTING IT ON THE FLOOR. A STOOL CAN NOW BE PLACED ADJACENT TO THE HARNESS ASSEMBLY AND YOU CAN PROCEED WITH HEDDLE INSTALLATION.

ACCESS TO THE HARNESS ASSEMBLY FROM THE FRONT:

(SEE PHOTOS #4A, #4B, #5, #6 & #7)

TOOLS NEEDED: A 7/16" WRENCH OR ADJUSTABLE WRENCH SUCH
AS A CRESCENT WRENCH

TO ACHIEVE UNOBSTRUCTED ACCESS TO THE HARNESS FRAMES FROM THE FRONT OF THE LOOM, YOU MUST REMOVE THE BREAST BEAM, CLOTH BEAM AND BEATER ASSEMBLY. YOUR LOOM IS DESIGNED TO FACILITATE THIS.

FIRST, YOU MAY REMOVE THE BREAST BEAM BY PRYING OUT THE PLASTIC HOLE COVERS IN THE BEAM ENDS, AND UNSCREWING THE TWO BOLTS IN THE HOLES. USE THE 6-SIDED METAL BAR (AN ALLEN WRENCH) WHICH IS PROVIDED WITH YOUR LOOM (PHOTOS 4A & 4B).

NOTE!!! IT IS IMPORTANT HERE TO SUPPORT THE BEAM UNTIL BOTH ENDS ARE FREE. IF ONE END IS RELEASED AND ALLOWED TO FALL WHILE THE OTHER IS STILL ATTACHED, THE FORCE EXERTED ON THE SEATED JOINT COULD CAUSE THE JOINT TO BREAK.

NEXT REMOVE THE BEATER ASSEMBLY. FIRST LIFT OUT THE TWO LOCKING BLOCKS WHICH HOLD THE BEATER ASSEMBLY UPRIGHT (PHOTO #5). THEN LOOSEN THE TWO WING NUTS ON THE BOTTOM OUTSIDES OF THE LOOM WHERE THE BEATER ASSEMBLY PIVOTS FROM THE LOOM FRAME (PHOTO #6). LOOSEN THESE NUTS JUST FAR ENOUGH SO THE LARGE METAL WASHERS RECESSED INTO THE PIVOT ARM OF THE BEATER ASSEMBLY CAN MOVE OUT AND BE FREE OF THE WOOD. YOU CAN THEN LIFT THE BEATER ASSEMBLY AT ITS CENTER, AND REMOVE IT FROM THE LOOM. SET IT CAREFULLY ASIDE. WHEN YOU REATTACH IT, BE SURE TO KEEP THE SAME SIDE TOWARD THE FRONT OF THE LOOM.

FINALLY, THE CLOTH BEAM CAN BE REMOVED BY SWINGING OUT THE SHORT METAL STRAP WHICH HOLDS THE AXEL OF THE BEAM IN PLACE ON THE LEFT SIDE OF THE LOOM. FIRST BE SURE THAT THE 2 METAL PAWLS THAT CAN ENGAGE THE RATCHET ON THE RIGHT END OF THE BEAM ARE TURNED OR SUPPORTED SO THAT THEY ARE NOT TOUCHING THE RATCHET. USE A WRENCH TO LOOSEN BOTH BOLTS HOLDING THE LEFT METAL STRAP. SWING THE NOTCHED END OF THE STRAP OUT 90 DEGREES SO THAT IT CLEARS THE AXEL (PHOTO #7). NEXT, STAND ROUGHLY IN THE CENTER OF THE LOOM FACING THE CASTLE AND LIFT THE LEFT END OF THE BEAM UP SO THAT IT IS JUST ABOVE THE SIDE BRACE ON THE LOOM FRAME. HOLDING THE BEAM SECURELY, SLIDE IT TO THE LEFT UNTIL THE AXEL ON THE RIGHT END IS FREE, AND SET THE BEAM ASIDE.

YOU NOW HAVE FREE ACCESS TO THE FRONT OF THE CASTLE ASSEMBLY.

INSTALLING HEDDLES IN THE HARNESS FRAMES:

(SEE PHOTOS #8A, #8B & #9)

MATERIALS NEEDED: SPRING STEEL HEDDLE STRAPS (PROVIDED)
POLYESTER OR METAL HEDDLES (20 PER INCH
PROVIDED)

FOR THIS STEP YOU SHOULD SIT COMFORTABLY AT EITHER THE FRONT OR REAR OF THE LOOM, CLOSE TO THE HARNESSES AND AS LOW AS POSSIBLE SO YOU CAN SEE AND WORK WITH THE STEEL HEDDLE STRAPS IN THE TOP, AS WELL AS THE BOTTOM OF THE HARNESS FRAMES.

WORK ON ONE HARNESS AT A TIME, FINISHING IT BEFORE PROCEEDING TO THE NEXT. START WITH THE HARNESS THAT IS FARTHEST FROM THE SIDE ON WHICH YOU ARE SITTING AND WORK TOWARD YOURSELF SO THAT THE HEDDLES FROM HARNESSES ALREADY STRUNG DO NOT GET IN YOUR WAY AS YOU PROCEED. IF THE STEEL STRAPS ARE ALREADY IN PLACE IN YOUR LOOM, THEY MUST BE REMOVED FROM THE SLOTS ON ONE SIDE OF EACH HARNESS FRAME. DO THIS BY GRASPING EACH STRAP NEAR ITS CENTER AND TWISTING IT SLIGHTLY UNTIL IT PULLS FREE OF THE SLOT AND CAN BE REMOVED (PHOTOS #8A & #8B).

ONCE YOU ARE FAMILIAR WITH THE PROCESS OF STRINGING HEDDLES, YOU WILL NO DOUBT WORK OUT A METHOD THAT SUITS YOU BEST. HERE WE WILL SIMPLY SUGGEST ONE METHOD YOU MAY WISH TO START WITH.

YOU MAY STRING ALL THE HEDDLES ONTO ONE OF THE STEEL HEDDLE STRAPS, AND THEN INSTALL THIS STRAP ON THE BOTTOM OF THE HARNESS FRAME. GROUP THE PROPER NUMBER OF HEDDLES ON EACH SIDE OF THE METAL SUPPORT HOOKS BEFORE THE STRAP IS PLACED IN THE HOOKS. PUT THE STRAP INTO THE SLOTS IN THE WOODEN SIDES BY TWISTING AT THE CENTER AS BEFORE. NOW STRING THE OTHER END OF THE HEDDLES THROUGH THE SECOND STEEL STRAP AND INSTALL IT AT THE TOP OF THE HARNESS. AGAIN, BE SURE THAT THE HEDDLES ARE GROUPED ON THE PROPER SIDES OF THE STEEL HOOKS. IN ORDER TO LIFT THE TOP STRAP HIGH ENOUGH TO GET IT INTO EACH OF THE METAL SUPPORT HOOKS (PHOTO #9), IT MAY BE NECESSARY TO SLIDE THE HEDDLES AWAY FROM THE HOOK. SOME EXPERIMENTATION WILL SHOW YOU THE BEST WAY TO DO THIS, DEPENDING ON THE SIZE AND TYPE OF HEDDLE YOU ARE WORKING WITH.

NOTE THAT THE METAL HOOKS MOUNTED ON THE BOTTOM OF EACH HARNESS FRAME ARE LONGER THAN THOSE MOUNTED ON THE TOP. THIS IS TO PREVENT THE STEEL STRAP FROM JUMPING OUT OF THE HOOK IF THE HARNESS IS BROUGHT DOWN WITH GREAT FORCE. CORRESPONDINGLY, IT IS THEREFORE NECESSARY THAT THIS STRAP BE PLACED IN POSITION FIRST, WITH THE TOP STRAP BEING LIFTED INTO POSITION LAST. OTHERWISE THE LENGTH OF THE HEDDLES MAY BE TOO SHORT TO ALLOW THE BOTTOM STRAP TO BE PUSHED LOW ENOUGH TO ENTER THE METAL HOOKS.

IF YOU ORDERED POLYESTER STRING HEDDLES WITH YOUR LOOM, THEY WILL ARRIVE IN A CONTINUOUS STRING, RATHER THAN AS INDIVIDUAL HEDDLES. FOR THE MOST PART THESE MAY BE LEFT ATTACHED TO EACH OTHER AND SIMPLY BE STRUNG IN ORDER ONTO THE STEEL STRAPS, BEFORE REMOVING THE TWIST TIES HOLDING THE HEDDLES INTO BUNDLES. IT MAY BE NECESSARY TO CUT THE LINK BETWEEN GROUPS OF HEDDLES THAT FALL ON DIFFERENT SIDES OF THE METAL HOOKS, SO THAT THESE MAY BE SLID ASIDE IN GROUPS TO ALLOW THE STRAP TO BE LIFTED INTO THE TOP HOOKS. HEDDLES MAY ALSO BE SEPARATED IF ONLY A FRACTION ARE TO BE USED IN A PARTICULAR PROJECT, AND THE REST ARE TO BE MOVED OFF TO THE SIDES TO BE OUT OF THE WAY.

WARPING THE LOOM:

VERY LITTLE WILL BE SAID HERE ABOUT WARPING, AS THIS IS A COMPLEX TOPIC WHICH HAS BEEN THE SUBJECT OF ENTIRE BOOKS. THE BEKA FLOOR LOOM HAS BEEN EXPRESSLY DESIGNED TO LEND ITSELF TO A WIDE VARIETY OF WARPING APPROACHES. IF YOU WISH TO WARP BY THREADING FROM THE FRONT TO THE BACK, YOU HAVE EASY ACCESS FROM THE BACK OF THE CASTLE AS DESCRIBED PREVIOUSLY. FOR THREADING THROUGH THE REED, LOCKING BLOCKS ARE PROVIDED TO HOLD THE BEATER UPRIGHT. YOU MAY ALSO WISH TO PLACE A RADDLE OF SOME TYPE INTO THE BEATER ASSEMBLY IN PLACE OF THE REED.

IF YOUR WARP IS FIRST WOUND ONTO THE WARP BEAM, AND THEN THREADED THROUGH THE HEDDLES, YOU HAVE EASY ACCESS FROM THE FRONT OF THE HARNESS ASSEMBLY AS NOTED ABOVE.

TYING TO THE WARP AND CLOTH BEAMS:

EACH BEAM IS PROVIDED WITH 2 APRON RODS AND A MUSLIN APRON. THE APRONS ARE SECURED TO THE BEAMS BY MEANS OF A ROD PLACED IN A SEAM AT THE END OF THE APRON. THE ROD IS THEN PRESSED INTO A SLOT IN THE BEAM AND IS HELD IN PLACE BY PRESSURE FROM THE APRON ITSELF WHICH IS WRAPPED TIGHTLY AROUND THE BEAM, TRAPPING THE ROD IN THE SLOT. THE APRON CAN EASILY BE REMOVED SHOULD YOU WANT TO CLEAN OR REPLACE IT FOR ANY REASON.

THE DIRECTION FOR WRAPPING THE APRON IS CLEAR BY OBSERVING THE DIRECTIONS IN WHICH THE BRAKE AND RATCHET WILL PREVENT ROTATION OF THE BEAM. THE WARP YARN SHOULD BE WOUND ONTO THE WARP BEAM BY CRANKING THE HANDLE CLOCKWISE WHEN VIEWED FROM THE RIGHT SIDE OF THE LOOM (NOTE: A WARP BEAM CRANK IS PROVIDED, AND CAN BE REMOVED AND STORED ONCE THE WARP IS WOUND). SIMILARLY, THE FINISHED CLOTH IS WOUND ONTO THE CLOTH BEAM BY CRANKING THE RATCHET LEVER UPWARD, ROTATING THE BEAM CLOCKWISE WHEN VIEWED FROM THE RIGHT SIDE OF THE LOOM. THE APRONS MUST BE WOUND ONTO THE BEAMS IN THE SAME DIRECTION.

THE APRON RODS ARE USED IN PAIRS. ONE OF THE RODS IS PLACED IN THE SEAM IN THE FREE END OF THE APRON. THE OTHER IS TIED PARALLEL TO THE FIRST, WITH STRING JOINING THE TWO EVERY FEW INCHES TO PROVIDE UNIFORM SUPPORT TO THE EXPOSED ROD. THE APRON MUST FIRST BE SLIT EVERY FEW INCHES WITH A SCISSORS (PHOTO #10) TO PROVIDE ACCESS TO THE INNER ROD, SO THAT A STRING MAY BE LOOPED AROUND IT. TAKE CARE NOT TO CUT THE HEM THREADS WHILE SLITTING. THE WARP ENDS ARE THEN TIED TO THE FREE ROD.

TWO ADDITIONAL RODS (IDENTICAL TO THE 4 APRON RODS) ARE PROVIDED FOR USE AS LEASE STICKS DURING WARPING, IF YOU USE THIS WARPING METHOD.

DOING THE LOOM TIE-UP:

(SEE PHOTOS #11, #12 & # 13)

MATERIALS NEEDED: METAL TIE-UP WIRES (50 PROVIDED)

IN THIS STEP THE TREADLES TO BE USED FOR THE WEAVING PATTERN CHOSEN ARE TIED TO THE BOTTOM LAMMS IN THE PROPER SEQUENCE TO PRODUCE THE PATTERNS YOU DESIRE. 50 HOOKS ARE PROVIDED, AND EXTRA HOOKS MAY BE ORDERED SHOULD THEY BE NEEDED.

SINCE THE 10 TREADLES ARE REMOVABLE, YOU NEED USE ONLY AS MANY AS REQUIRED BY THE PATTERN YOU ARE WORKING. THE REST CAN BE STORED OUT OF THE WAY.

ONCE YOU ARE CLEAR ON THE TIE-UP PATTERN YOU WILL USE, SELECT THE REQUIRED NUMBER OF TREADLES AND TIE-UP WIRES NEEDED AND PLACE THEM NEAR THE FRONT OF THE LOOM. YOU WILL PROBABLY HAVE TO SIT OR KNEEL ON THE FLOOR AT THE FRONT OF THE LOOM FOR THIS STEP. ONE HINT TO SIMPLIFY YOUR TASK: PULL EACH LOWER LAMM DOWN AS YOU ARE READY TO WORK ON IT, AND PLACE A SMALL OBJECT SUCH AS A PENCIL ABOVE THE LAMM (PHOTO #11). RELEASE IT, AND IT WILL RAISE UNTIL STOPPED WHEN THE OBJECT HITS THE OTHER LAMMS. THIS WILL HOLD DOWN THE LAMM YOU WANT TO TIE UP, FREEING YOUR HANDS WHILE LEAVING THE LAMM CLEARLY IN VIEW.

TAKE ONE TIE-UP WIRE AND ONE TREADLE, HOLD THE TREADLE WITH THE SLOTTED END TOWARD THE REAR OF THE LOOM AND THE NOTCHED SIDE TOWARD THE FRONT OF THE LOOM AND DOWN. PUT THE BENT TAIL (THE "L") OF THE TIE-UP WIRE THROUGH THE SLOT IN THE TREADLE FROM THE TOP, AND THEN ANGLE THE WIRE UNTIL YOU CAN PUT THE HOOK THROUGH THE APPROPRIATE TIE-UP HOLE IN THE LAMM (PHOTO #12). PLACE THE NOTCH IN THE BOTTOM OF THE TREADLE INTO THE CORRESPONDING NOTCH IN THE CROSS BAR AT THE BOTTOM FRONT OF THE LOOM (PHOTO #13).

PROCEED WITH THE OTHER TIE-UPS IN A SIMILAR MANNER, BEGINNING WITH TIE-UPS TO THE LAMM FARTHEST FROM YOU AND WORKING TOWARD YOU (IE.; WORKING FROM THE BACK TO THE FRONT OF THE LOOM). AS MORE TIE WIRES ARE CONNECTED TO A GIVEN TREADLE, IT MUST BE RAISED HIGH ENOUGH TO ALLOW EACH WIRE TO BE HOOKED INTO ITS LOWER LAMM HOLE. THIS SHOULD NOT POSE A PROBLEM ONCE YOU HAVE HAD SOME PRACTICE.

NOTE: TYPICALLY, TIE-UPS ARE DONE AFTER THE LOOM IS WARPED. HOWEVER, IF YOU WIND YOUR WARP ONTO THE WARP BEAM AND THEN THREAD THE WARP ENDS THROUGH THE HEDDLES WHILE SITTING AT THE FRONT OF THE HARNESS ASSEMBLY, AFTER REMOVING THE FRONT BEAMS AND BEATER ASSEMBLY, YOU MAY WANT TO REINSTALL THE BEATER ASSEMBLY AND THREAD THROUGH THE REED, BUT THEN TIE THE WARP OFF IN ONE OR MORE KNOTS. USING THIS METHOD YOU CAN DO THE TIE-UPS WITH THE BREAST AND CLOTH BEAMS OUT OF THE WAY. AFTER THE TIE-UP IS COMPLETE, YOU CAN INSTALL THE TWO BEAMS AND COMPLETE THE WARPING PROCESS.

CHANGING REEDS IN THE BEATER:

THE BEKA FLOOR LOOM IS NORMALLY EQUIPPED WITH A 12-DENT REED. OTHER SIZES ARE AVAILABLE IF YOU NEED THEM. TO CHANGE REEDS, SIMPLY LOOSEN THE TWO WING NUTS SECURING THE TOP OF THE BEATER ASSEMBLY, AND SLIDE THE TOP UP UNTIL THE REED IS FREE AND CAN BE REMOVED. PLACE THE NEW REED IN POSITION, AND SLIDE THE TOP BAR DOWN, TAPPING IT GENTLY ALONG ITS LENGTH UNTIL IT IS FIRMLY SEATED OVER THE TOP OF THE REED. RETIGHTEN THE WING NUTS BY HAND UNTIL THEY ARE SNUG.

GENERAL LOOM MAINTENANCE & ADJUSTMENTS

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CARE OF LOOM:

YOUR LOOM IS FINISHED WITH WATCO BRAND DANISH OIL. THIS IS A PENETRATING OIL WHICH DOES NOT DETERIORATE WITH AGE. REPEATED OILING, EVEN FROM THE OILS ON YOUR HANDS, WILL ENHANCE THE ORIGINAL FINISH. AFTER YEARS OF USE YOUR LOOM WILL DEVELOP A LUSTROUS PATINA. WATCO OIL SHOULD BE AVAILABLE TO YOU THROUGH A PAINT STORE LOCALLY IN THE EVENT YOUR LOOM RECEIVES A SCRATCH OR CHIP THAT YOU WISH TO SAND OUT AND REFINISH. OTHERWISE, TREAT THE LOOM AS YOU WOULD ANY PIECE OF FINE FURNITURE. IT MAY BE CLEANED AND POLISHED WITH A GOOD FURNITURE POLISH. THIS IS OPTIONAL, HOWEVER, SINCE THE OIL FINISH IS DURABLE, WATER-RESISTANT AND WASHABLE AND DOES NOT REQUIRE ANY SPECIAL MAINTENANCE.

THE HARNESS SLOTS IN THE SIDES OF THE CASTLE ASSEMBLY WERE LUBRICATED AT THE FACTORY WITH SILICONE TO PROVIDE A SMOOTH SLIDING SURFACE FOR THE HARNESS FRAMES. IF YOU NOTICE ANY TENDENCY OF THE HARNESSES TO "HANG UP" AS A RESULT OF FRICTION HERE, YOU CAN SPRAY THE SLOTS WITH A SILICON LUBRICANT. THIS SHOULD BE AVAILABLE AT A LOCAL HARDWARE STORE.

IF ANY OF THE JOINTS IN THE LOOM FRAME OR ANY OF THE ATTACHED HARDWARE SHOULD SHOW ANY SIGNS OF LOOSENING UP WITH USE OR AGE, SIMPLY TIGHTEN THEM WITH THE APPROPRIATE TOOL (TYPICALLY A CRESCENT WRENCH, SCREWDRIVER OR ALLEN WRENCH). IT IS IMPORTANT THAT THIS BE DONE AS SOON AS A LOOSENING IS NOTICED TO PREVENT DAMAGE TO THE PARTS INVOLVED.

ADJUSTING THE WARP BEAM BRAKE:

(SEE PHOTO #14)

NOTICE THAT THERE ARE EXTRA HOLES ON THE INSIDE OF THE RIGHT SUPPORT ON THE FOLDING BACK BEAM ASSEMBLY, JUST BELOW THE HOLE USED TO SECURE THE BASE OF THE BRAKE SPRING (PHOTO #14). IN THE EVENT THAT MORE TENSION SHOULD BE DESIRED THAN CAN BE SUSTAINED BY THE SPRING IN THIS POSITION, THE SPRING BASE CAN BE LOWERED TO INCREASE THE TENSION ALLOWED. TO DO THIS, FIRST UNHOOK THE TOP OF THE SPRING FROM THE METAL BRAKE CROSS ARM. THEN USE A WRENCH TO REMOVE THE BOLT SECURING THE SPRING BASE, AND REPLACE IT IN ONE OF THE LOWER HOLES. THEN REATTACH THE SPRING TO THE CROSS ARM. USE CAUTION WHEN DETACHING AND REATTACHING THE SPRING. BE SURE TO HOLD THE UPPER END OF THE SPRING SECURELY. USE OF A TOOL SUCH AS A PAIR OF PLIERS IS RECOMMENDED. THIS WILL PREVENT THE SPRING FROM SLIPPING AND POSSIBLY INJURING YOUR HAND.

A COMMENT ON THE USE OF A FRICTION BRAKE IS IN ORDER HERE, ESPECIALLY FOR THOSE WHO HAVE ONLY USED LOOMS WITH RATCHET BRAKES. UNLIKE RATCHETS, A FRICTION BRAKE WILL SLIP IF ENOUGH FORCE IS APPLIED TO IT. YOUR BRAKE HAS BEEN DESIGNED TO WITHSTAND ANY WARP TENSION THAT YOU MIGHT REASONABLY NEED. HOWEVER, YOU MAY FIND THAT IF YOU BEAT VERY STRONGLY SOME SLIPPAGE DOES OCCUR. THIS CAN BE PREVENTED BY INCREASING THE SPRING TENSION AS DESCRIBED ABOVE AND, IF NECESSARY IN RARE CASES, BY REDUCING YOUR BEATING FORCE.

ADJUSTING THE BRAKE RELEASE CHAIN:

(SEE PHOTO #15)

IF YOU WISH TO CHANGE THE POSITION OF THE BRAKE FOOT LEVER AT THE FRONT OF THE LOOM, THIS MAY BE DONE BY UNHOOKING THE BRAKE LEVER END OF THE CHAIN AND SHORTENING OR LENGTHENING IT AS DESIRED. IT IS RECOMMENDED THAT THE LEVER BE POSITIONED SO THAT THE BRAKE IS RELEASED WHEN THE FOOT LEVER IS HELD BELOW THE BRAKE LOCKING BLOCK ON THE RIGHT FRONT LEG (PHOTO #15).

ADJUSTING OR REMOVING & REPLACING A HARNESS FRAME:

(SEE PHOTO #16)

TOOLS NEEDED: A SCREWDRIVER

A PLIERS, CRESCENT WRENCH, OR EQUIVALENT

EACH HARNESS FRAME IS CONNECTED TO THE ALUMINUM LAMM SYSTEM BY TWO MACHINE SCREWS AND NUTS. THESE CONNECT THE BOTTOM OF THE FRAME TO THE TWO VERTICAL TIE BARS THAT ACTUALLY LIFT THE HARNESS FOR WEAVING. THE JOINT BETWEEN THE TWO PARTS MUST BE FREE TO MOVE EASILY, OR THE HARNESS MAY NOT DROP DOWN SMOOTHLY WHEN THE TREADLE IS RELEASED. THESE ARE CAREFULLY ADJUSTED AT THE FACTORY, BUT IF SOME CHANGE REQUIRES FURTHER ADJUSTMENT, OR IF YOU WISH TO REMOVE AND LATER REPLACE A HARNESS FRAME FOR ANY REASON, THIS SECTION GIVES A PROCEDURE TO FOLLOW.

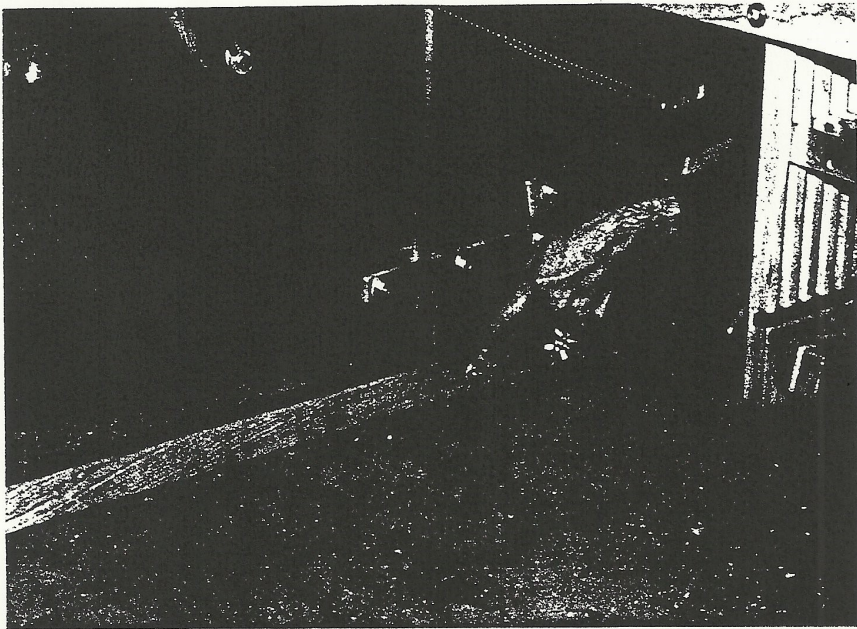
NOTE THAT EACH HARNESS IS POSITIONED SO THAT THE 2 HOLES FOR LAMM ATTACHMENT AT THE BOTTOM HAVE A COUNTERSINK ON THE SIDE FACING THE FRONT OF THE LOOM (WITH A NOTCH CUT OUT ON THE OPPOSITE SIDE IF THE HARNESS BOTTOM IS MADE OF WOOD). REMEMBER TO KEEP THIS ORIENTATION IF A FRAME IS REMOVED AND THEN REPLACED. THE HEAD OF THE ATTACHING SCREW FITS INTO THIS COUNTERSUNK HOLE SO THERE IS NO PROJECTION TO RUB AGAINST ADJACENT HARNESS FRAMES.

IF YOU WILL BE WORKING ON THE SCREWS ATTACHING THE HARNESS TO THE LAMM TIE RODS, HERE IS A HELPFUL HINT: RAISE THE HARNESS TO BE SERVICED AND PLACE AN OBJECT SUCH AS A PENCIL UNDER IT AND ON TOP OF THE BOTTOM BARS OF THE OTHER HARNESSES (PHOTO #16). WHEN THE HARNESS IS RELEASED, IT WILL REST ON THE OBJECT AND BE HELD UP SO THAT THE MACHINE SCREW AND NUT ARE EASILY ACCESSIBLE, LEAVING BOTH YOUR HANDS FREE.

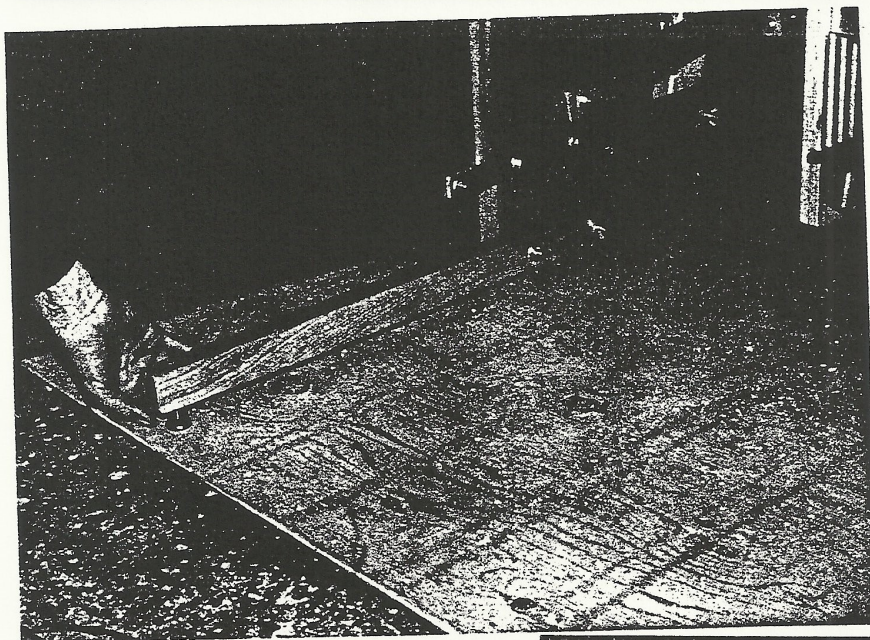
THE MACHINE SCREW (SIZE 8-32 X 1/2" FLAT HEAD, IF YOU SHOULD LOSE ONE) GOES THROUGH THE BOTTOM OF THE HARNESS FRAME FROM THE FRONT OF THE LOOM, AND IS THEN SCREWED INTO THE HOLE IN THE ALUMINUM TIE ROD, WHICH IS THREADED TO RECEIVE IT. TIGHTEN THE SCREW GENTLY, UNTIL THE TWO SURFACES ARE JUST FIRMLY IN CONTACT, THEN CAREFULLY UNSCREW IT 1/2 TO 1 TURN UNTIL THE HARNESS DROPS BACK FREELY WHEN RAISED AND RELEASED. NOW HOLD THE SCREW IN POSITION WITH YOUR SCREWDRIVER AND THREAD A NUT ONTO THE STUB OF THE SCREW PROJECTING FROM THE ALUMINUM. TIGHTEN THE NUT FIRMLY WITH A WRENCH OR PLIERS (PHOTO #16). DO NOT OVERTIGHTEN IN ANY OF THESE STEPS, SINCE ALUMINUM IS RELATIVELY SOFT, AND TOO MUCH PRESSURE COULD DESTROY THE THREADS CUT INTO THE ALUMINUM TIE ROD. THERE IS NO NEED FOR CONNECTIONS TO BE VERY TIGHT HERE.

SUMMARY OF LOOM FEATURES

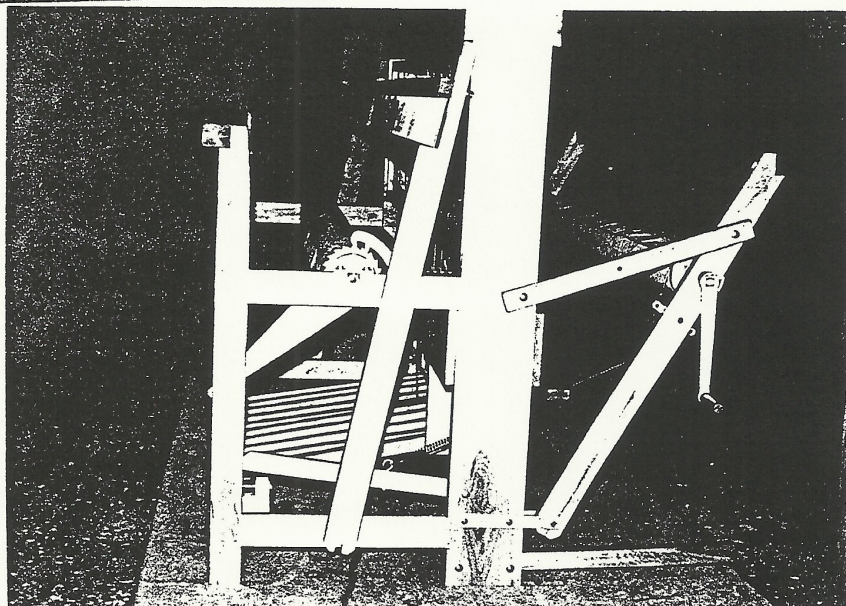
- * 8-HARNESS, 10-TREADLE JACK LOOM IS STANDARD
- * FRICTION BRAKE ON WARP BEAM, RATCHET WITH DOUBLE PAWL ON CLOTH BEAM
- * FRICTION BRAKE RELEASE LEVER AT FRONT OF LOOM, WITH CATCH TO HOLD BRAKE OPEN WHEN DESIRED
- * BREAST AND BACK BEAMS ARE EASY TO REMOVE
- * FABRIC BEAM IS EASY TO REMOVE
- * BACK AND WARP BEAMS FOLD FOR EASE OF MOVING OR ACCESS TO THE REAR OF THE CASTLE ASSEMBLY
- * USES RIGID TIE-WIRES FOR FAST, RELIABLE TIE-UPS
- * ENTIRE BEATER ASSEMBLY IS EASY TO REMOVE
- * BEATER LOCKS IN UPRIGHT POSITION FOR EASY THREADING
- * BEATER CENTER IS CLEARLY INDICATED TO AID IN BEATING
- * REEDS CAN QUICKLY BE INTERCHANGED IN THE BEATER
- * CANVAS APRONS ARE EASY TO REMOVE
- * 2 LEASE STICKS AND 4 APRON RODS ARE PROVIDED
- * HARNESSES ARE SIMPLE TO REMOVE
- * HEDDLES SECURED BY EASILY REMOVABLE HEDDLE RODS



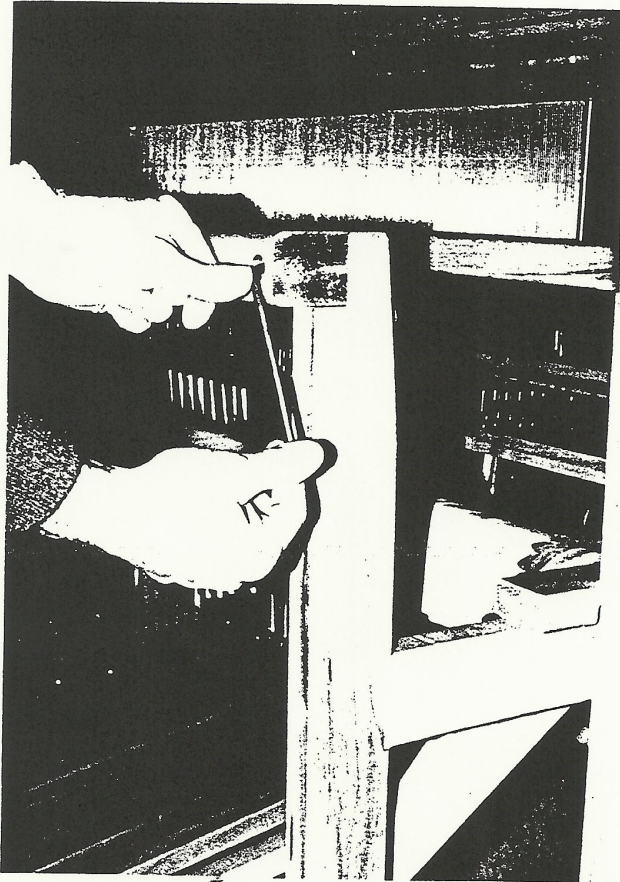
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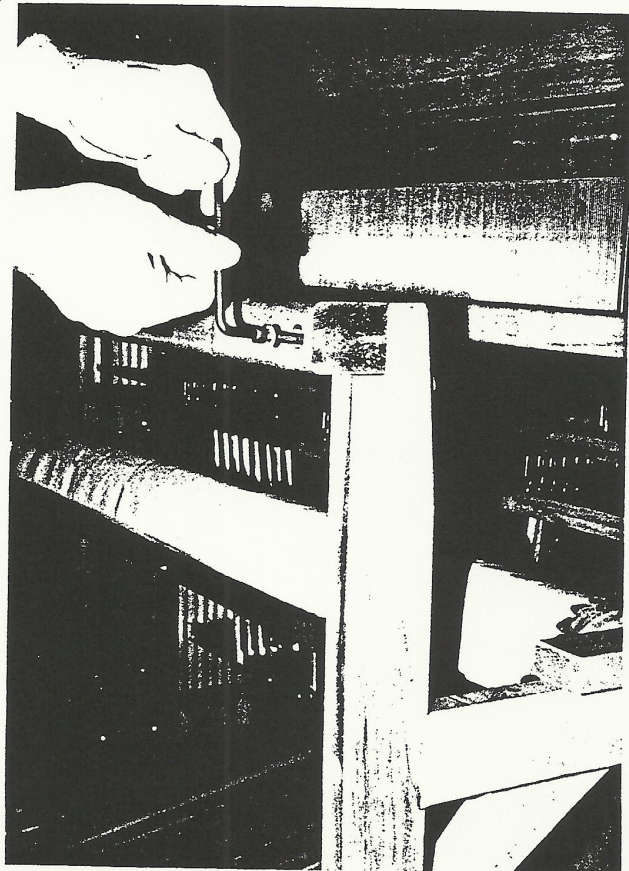
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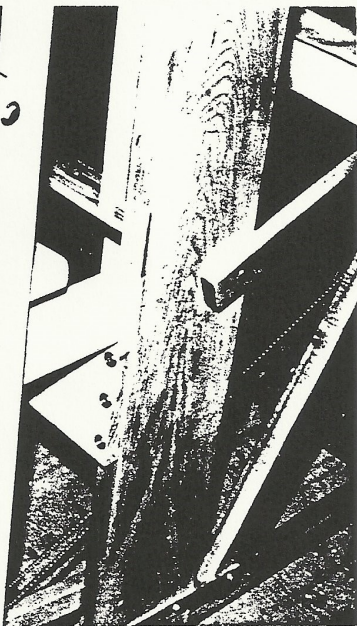
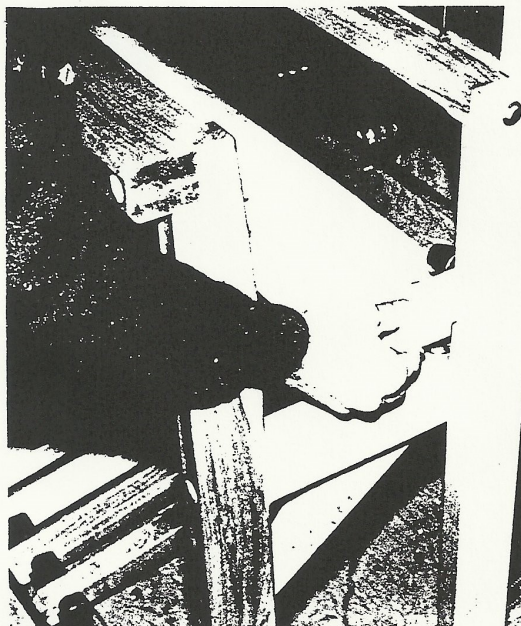
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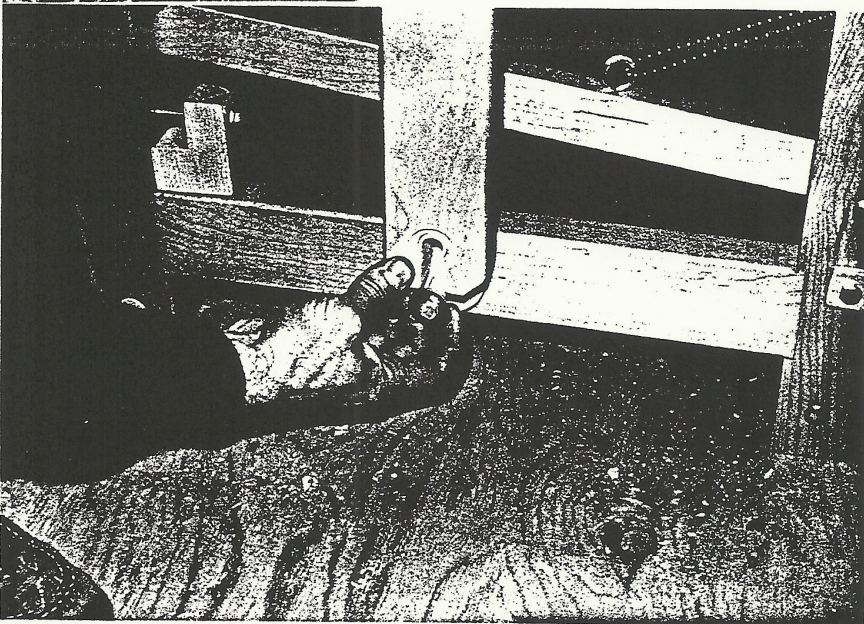
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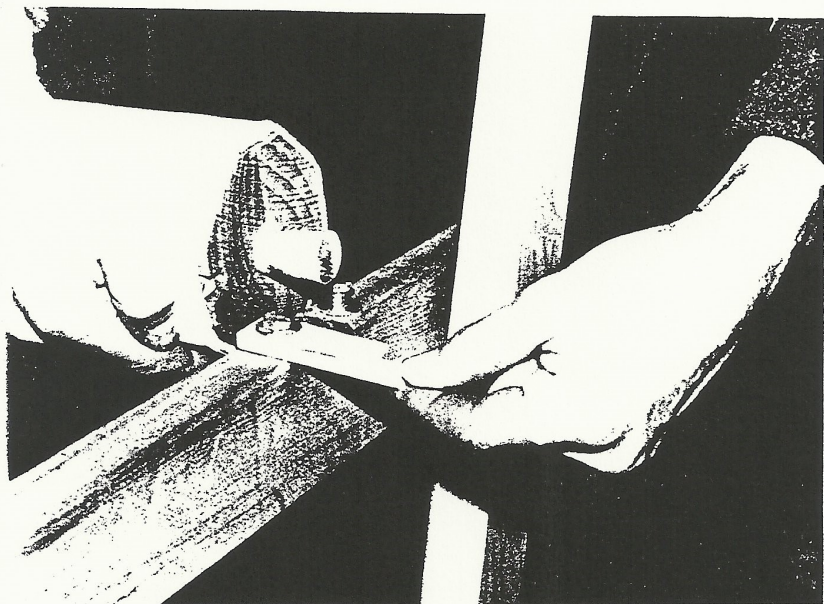
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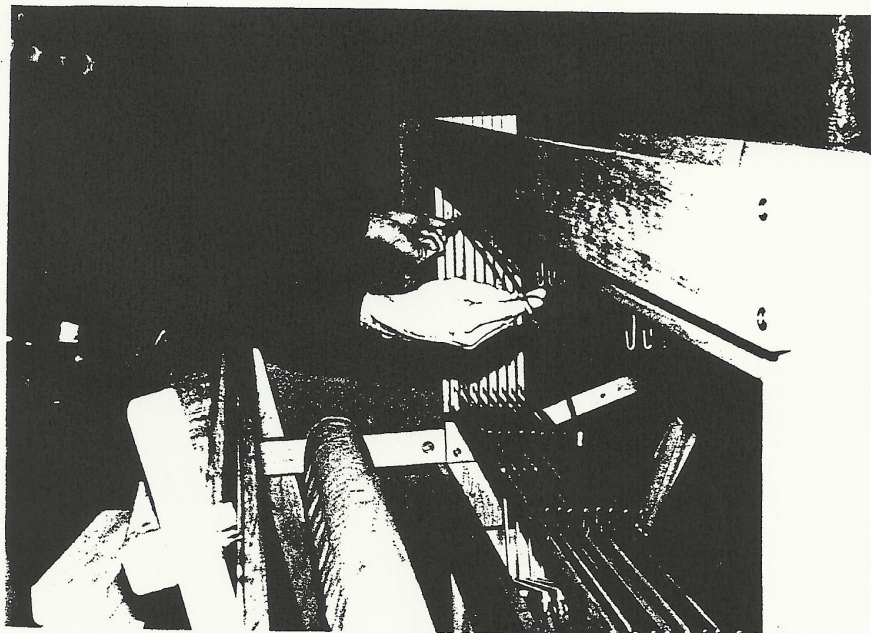
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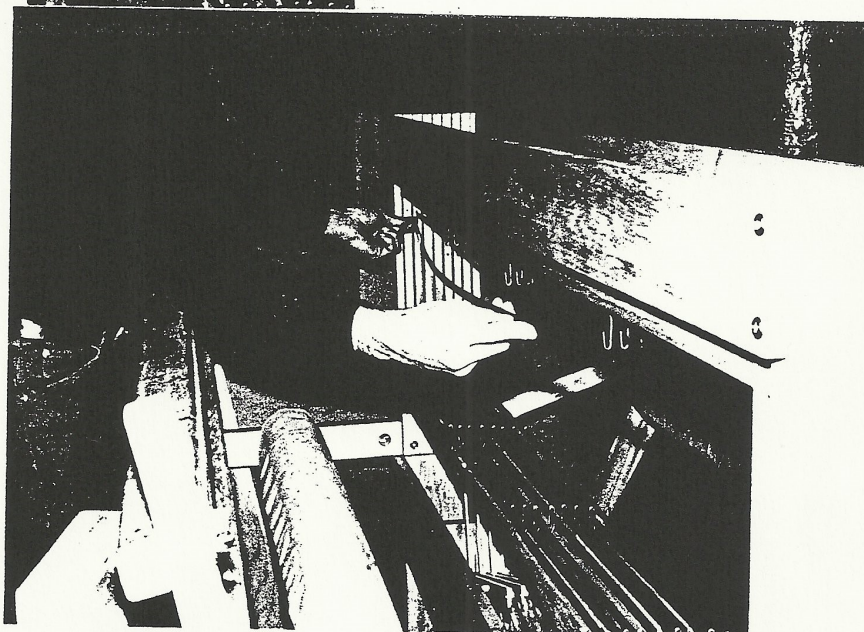
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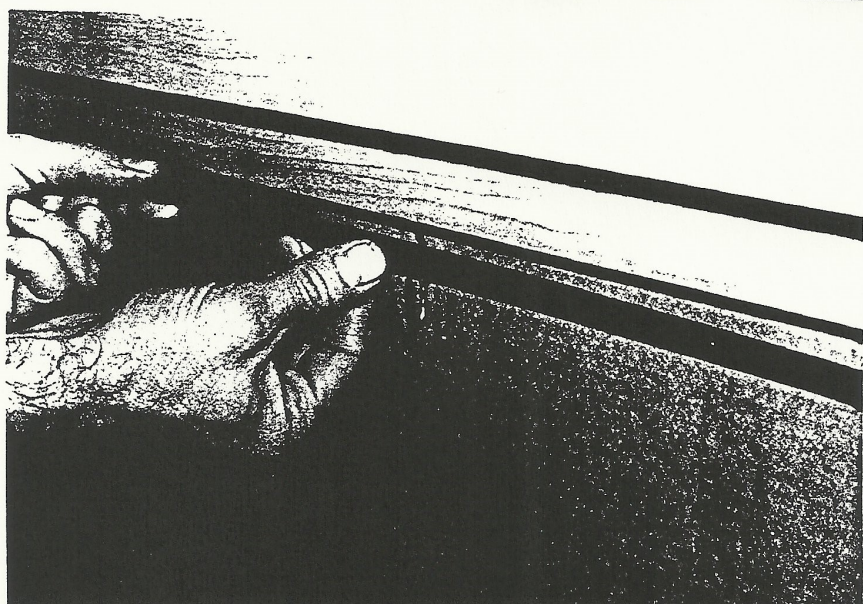
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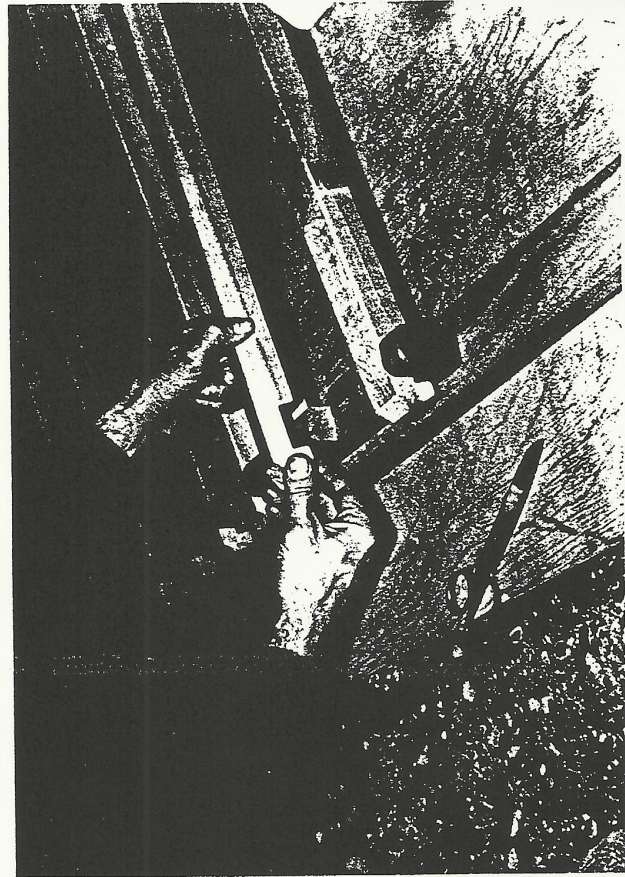
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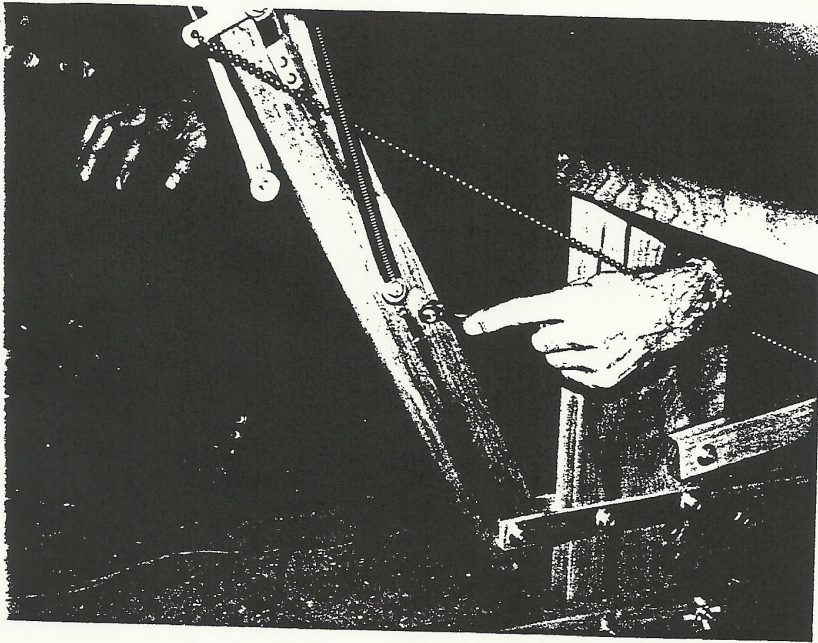
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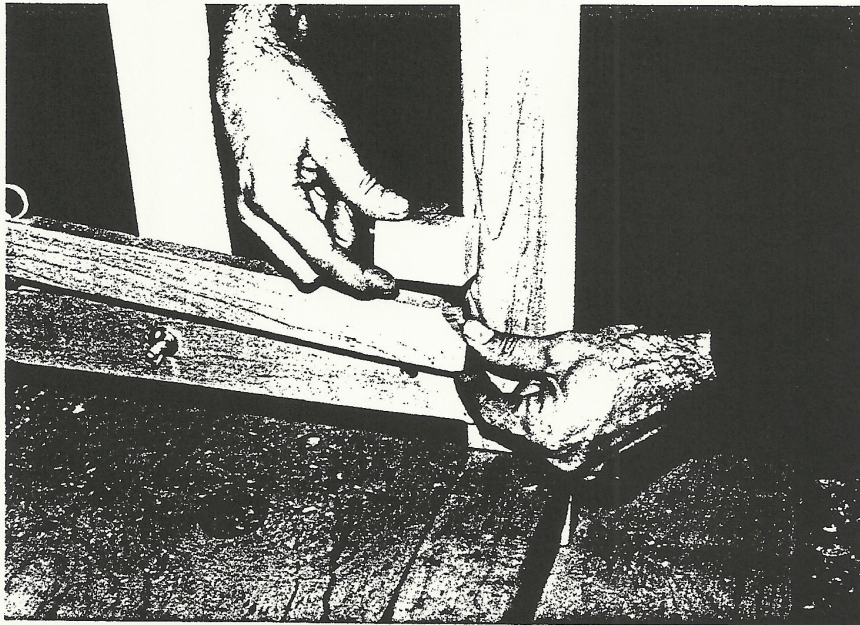
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