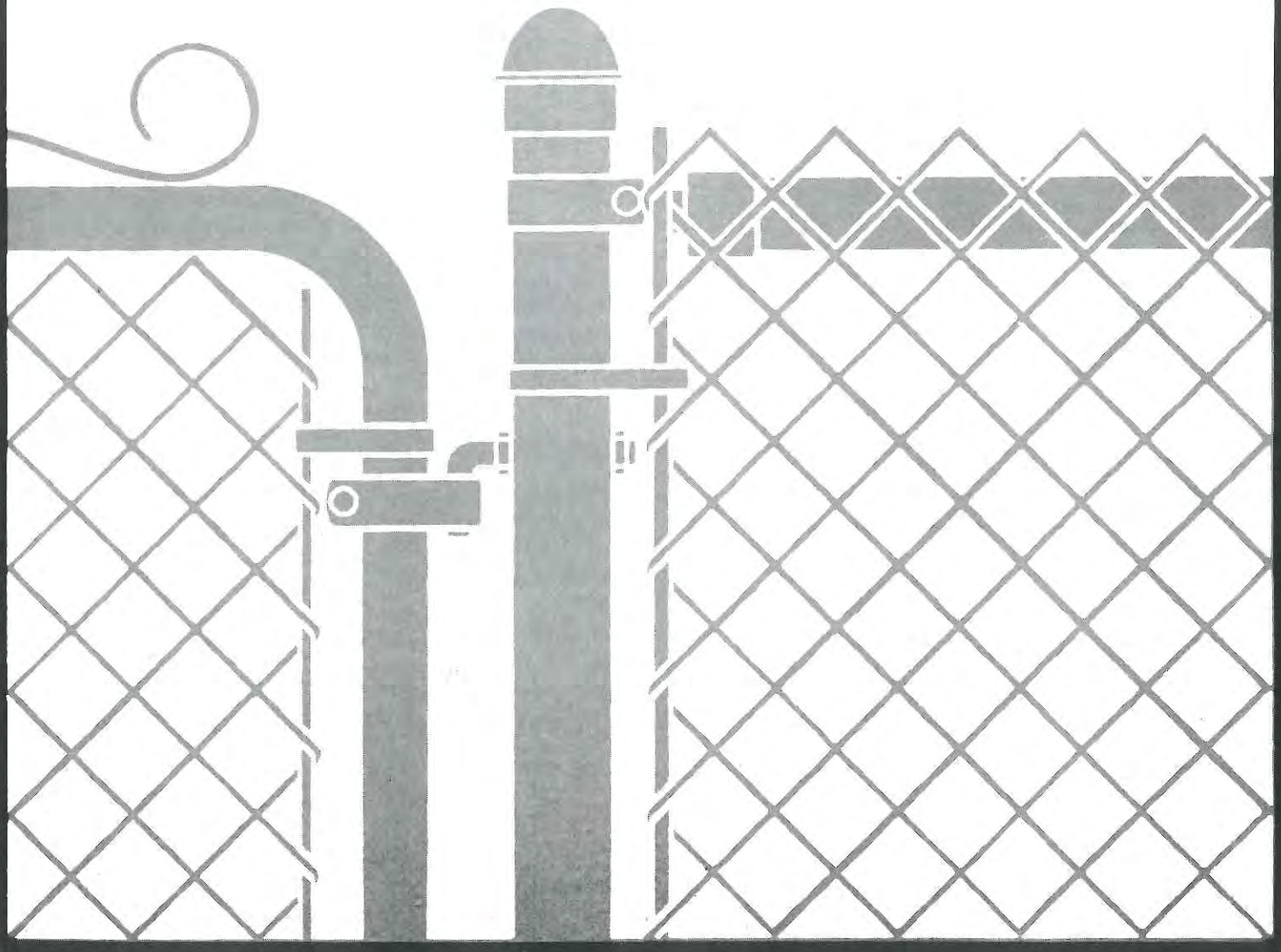
MADSEN FENCE LTD.

DO-IT-YOURSELF CHAIN LINK FENCE



INSTALLING CHAIN LINK FENCING

IT'S IMPORTANT . . .

1. That fence footings do not exceed legally established property lines. If uncertain, refer to real estate agents line plot or consult a professional surveyor.
2. To check local codes for specifications regarding frontage locations, height, etc. A permit may be required.
3. To check with local utility companies for locations of underground cables or pipe lines.

TOOLS YOU'LL NEED

1. String or chalk line and stakes.
2. Tape measure.
3. Post hole digger.
4. Wheelbarrow, shovel and hoe to mix and transport concrete.
5. Capenter's level.
6. 1/2"x9/16" wrench or cresent wrench.
7. Hacksaw or pipe cutter.
8. Fence stretcher.
9. Pliers.

STEP 1 LOCATING AND SETTING TERMINAL POSTS

(Corner, end and gate posts are called terminal posts) Stretch a chalk line or string between stakes driven on the extension of property lines. Allow about 24" on the offset (see Figure 1). It is recommended that posts be set approximately 4" inside property line to avoid encroaching on adjoining property with concrete footings.

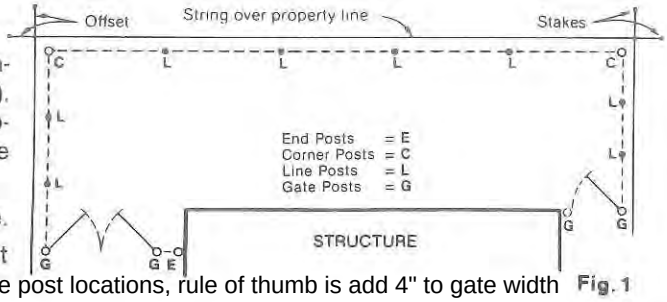


Fig. 1

Mark the location of each *corner* and *end* post with a small stake.

When determining the positions of gate posts remember that clearance for hinges, latches, etc. must be accounted for in your gate post locations, rule of thumb is add 4" to gate width for a single swing and 6" for a double swing. Example: 36" single swing gate, gate posts would be set 40" inside to inside.

Example: 12' double drive gate, gate posts would be set 150" inside to inside.

Gates come in the following standard widths:

Single walk - 36", and 48" Double drive - 10' sq. ft. and 12' sq. ft. In-stock sizes may vary based on local requirements

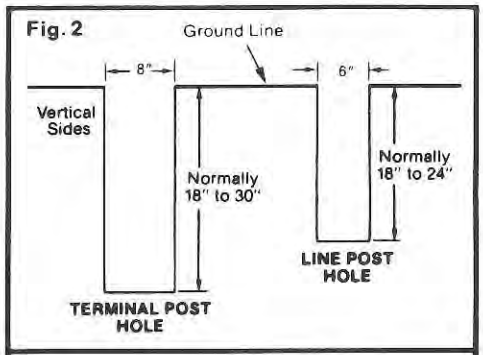
Mark the location of each gate post with a small stake

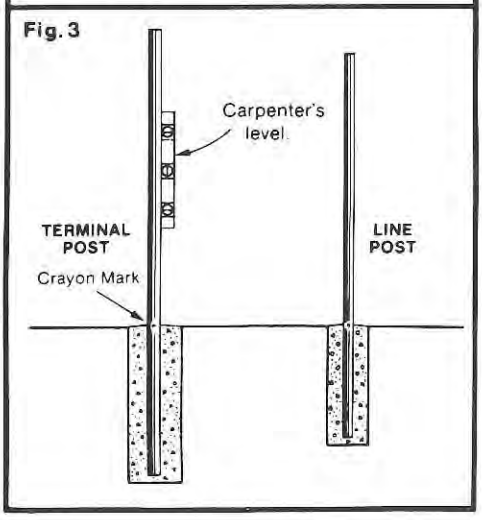
Holes for terminal posts

Although post depth will be determined by local weather and soil conditions, holes for terminal posts are normally dug 8" wide and 18" to 30" deep with vertical sides (see figure 2).

Now, dig all terminal post holes.

Next, with crayon or chalk, mark the ground line on posts. Height, above level groung, of terminal posts will equal the width of the fence fabric plus 2". Height of line posts (intermediate posts) will equal the width of the fabric minus 2".





Set all terminal posts in concrete. Center posts in hole. Set with crayon mark at ground level. (For special conditions, see figure 4.) Alignment should be from the center not the outside face of the posts. Check plumb with a carpenter's level. Finally, crown all post footings for water drainage by sloping concrete away from posts.

STEP 2 LOCATING AND SETTING LINE POSTS (Intermediate Posts)

After concrete footings have hardened enough for posts to remain plumb, stretch a string taut between terminal posts. It should be positioned on the outside face ofthe posts 4" below the top (see figure 5).

Measure the distance between terminal posts and refer to Line Post Spacing Chart for exact location of posts.

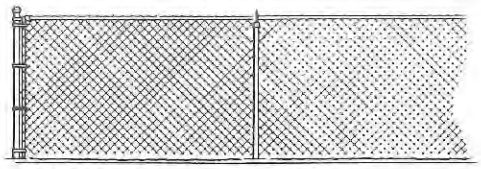
Mark the locations of all line posts with stakes. Align with the centers of terminal posts.

Now, dig the post holes (normally 6" wide and 18" to 24" deep) and set the line posts. Before concrete begins to set, adjust post height by carefully moving post up or down in footing. Top of line posts should be even with string; outside face approximately ¼" inside. Check plumb with carpenter's level. Crown footings as in step 1.

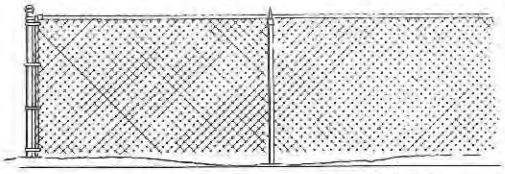
LINE POST SPACING CHART

Terminal Post Spacing	Set Line Posts Apart
30'	10'
31'	7' 9"
32'	8'
33'	8' 3"
34'	8' 6"
35'	8' 9"
36'	9'
37'	9' 3"
38'	9' 6"
39'	9' 9"
40'	10'
41'	8' 2"
42'	8' 5"
43'	8' 6"
44'	8' 9"
45'	9'
46'	9' 2"
47'	9' 5"
48'	9' 7"
49'	9' 9"
50'	10'
51'	8' 6"
52'	8' 8"
53'	8' 10"
54'	9'
55'	8' 2"
56'	9' 4"
57'	9' 6"
58'	9' 8"
59'	9' 10"
60'	10'
61'	8' 8"
62'	8' 10"
63'	9'
64'	9'
65'	9' 3"
66'	9' 5"
67'	9' 7"
68'	9' 8"
69'	9' 10"
70'	10'
71'	8' 9"
72'	9'
73'	9' 2"
74'	9' 3"
75'	9' 4"
76'	9' 6"
77'	9' 7"
78'	9' 9"
79'	9' 10"
80'	9'
81'	9'
82'	9' 1"
83'	9' 3"
84'	9' 4"
85'	9' 6"
86'	9' 7"
87'	9' 8"
88'	9' 9"
89'	9' 10"
90'	9'
91'	9' 2"
92'	9' 2"
93'	9' 3"
94'	9' 5"
95'	9' 6"
96'	9' 7"
97'	9' 7"
98'	9' 8"
99'	9' 9"
100'	10'
101'	9' 2"
102'	9' 3"
103'	9' 4"
104'	9' 5"
105'	9' 6"
106'	9' 7"
107'	9' 8"
108'	9' 9"
109'	9' 10"
110'	10'
111'	9' 3"
112'	9' 4"
113'	9' 5"
114'	9' 6"
115'	9' 7"
116'	9' 8"
117'	9' 9"
118'	9' 10"
119'	9' 10"
120'	10'
121'	9' 3"
122'	9' 4"
123'	9' 5"
124'	9' 6"
125'	9' 7"
126'	9' 8"
127'	9' 9"
128'	9' 10"
129'	9' 10"

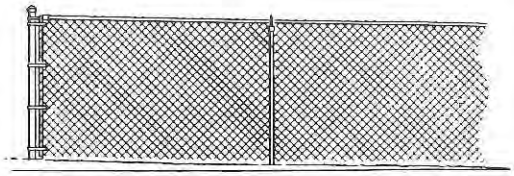
In all examples shown, tops of *terminal* posts should be 2" *above* fabric, tops of *line* posts 2" *below* top of fabric. Measure without fittings



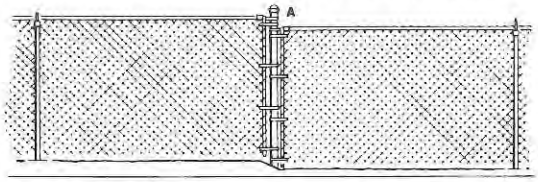
FLAT GROUND



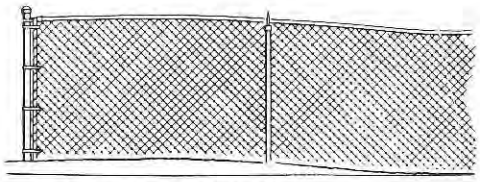
SLIGHTLY UNEVEN GROUND



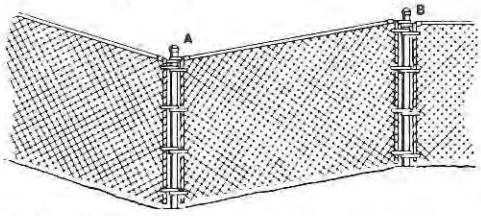
GRADUAL SLOPING GROUND



TERRACED GROUND
Corner post assembly is used at point A to allow fabric to follow terraced contour of ground



SLIGHTLY ROLLING GROUND



VERY UNEVEN GROUND
Corner post assembly is used at points A and B when ground rises or drops more than 15" per 100 lin. ft.

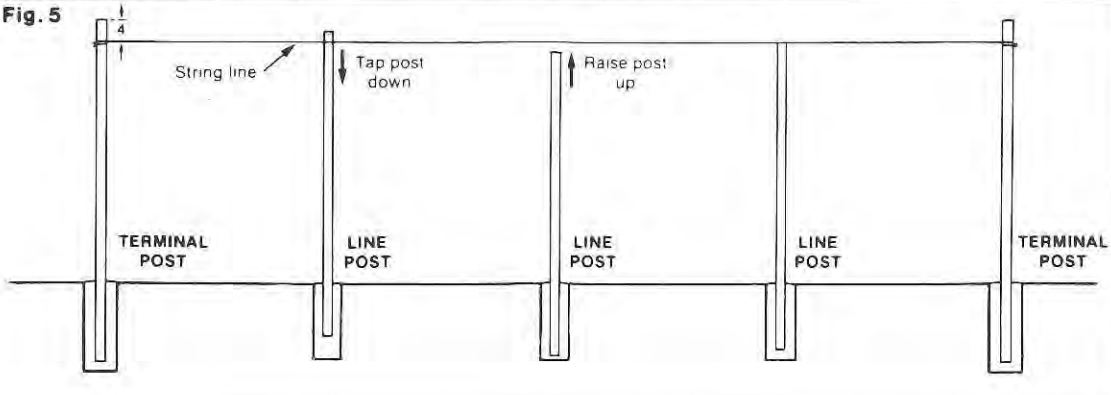
Figure 4

STEP 3 ADDING FITTINGS TO TERMINAL POSTS

Refer to parts list (page 5) for description and quantity of fittings required for various post types and heights.

After concrete footing have been allowed to harden sufficiently, slip tension bands, long flat surface toward outside or wire side, onto terminal posts. Next add brace bands. (See figure 6.) Take care not to spread or distort the fittings. Then apply all terminal post caps.

Fig. 5



STEP 4 ADDING TOP RAIL

Place eye-top fitting on each line post. Offset should be toward the outside of post (see figure 7). Then, thread a length of top rail pipe through the eye-tops on the line posts adjacent to a terminal post. Slip on a rail-end and attach the combination to brace band, already on the terminal post, with a 5/16"x1¼" carriage bolt (see figure 7). Continue by forcing lengths of swedge end top rail together through the eye-tops. If swedge end rail is not used, join lengths with top rail sleeve. Cut last piece of rail to fit tightly between prior length and rail-end when fastened to brace band on terminal post. Secure in place with a carriage bolt.

Figure 6

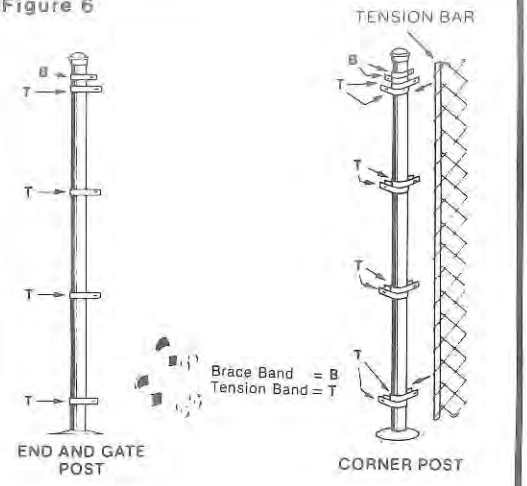
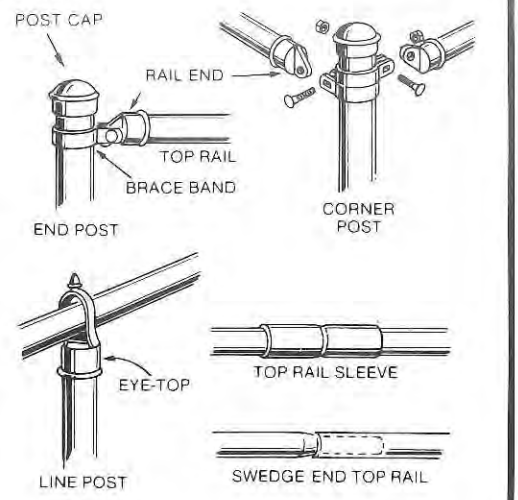


Figure 7

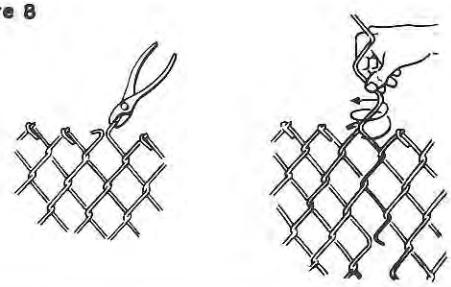


STEP 5 HANGING FENCE FABRIC

Starting at a terminal post, unroll chain link fabric on the ground along the outside of the fence line to next terminal post. Then, slide a tension bar through the first row of chain link. Fasten evenly spaced tension bands (already on the post) to the tension bar, fabric combination. Use 5/16"x1¼" carriage bolts; heads to the outside of the fence.

Now, walk along the fabric and stand it up against the fence frame, taking out the slack as you go. Loosely attach fabric to top rail with a few tie wires to hold it in place. Next, separate enough fabric from the roll to span the opening between the terminal posts. It is not necessary to cut wire (see figure 8).

Figure 8



REMOVING EXCESS FABRIC

With a pliers, open the top and bottom loops (knuckles) of a single strand of wire at the desired point of separation. Unwind the strand up through the links until the fabric comes apart.

SPLICING SECTIONS OF FABRIC

Using a single strand of wire, removed from end of fabric, join the two sections by winding the loose strand down, corkscrew style, through the end links. Join and tighten the knuckles at top and bottom to secure. Note: Before sections can be spliced, a second strand may have to be removed to provide a proper mesh.

Fig. 9

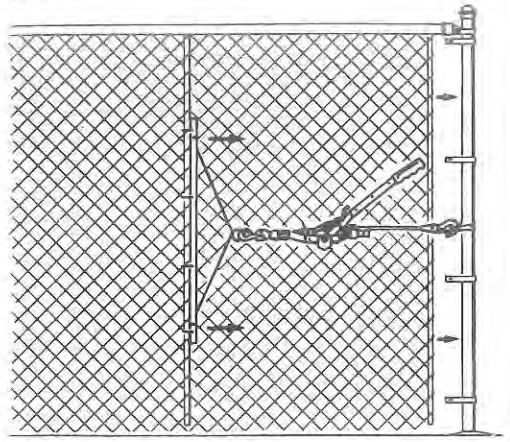
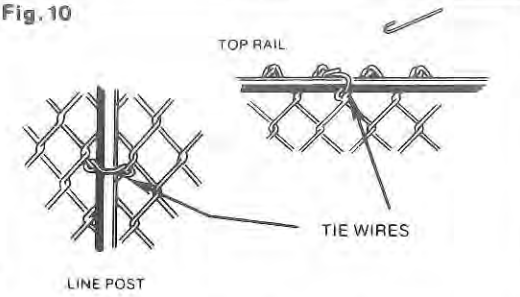


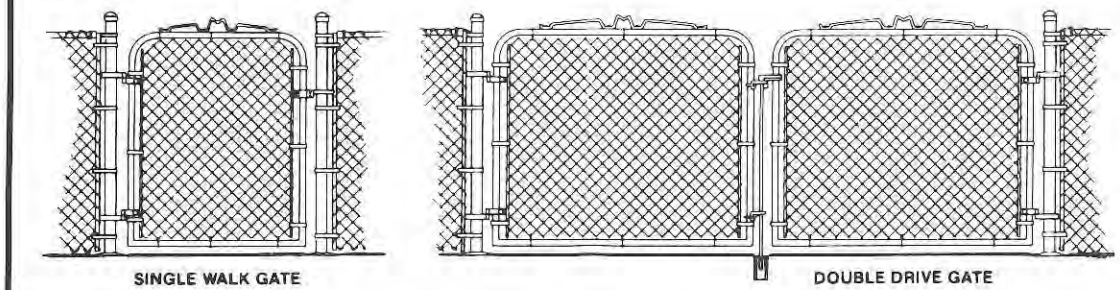
Fig. 10



STEP 6 STRETCHING FENCE FABRIC

Insert a tension bar about 3' inside the unattached end of the fabric (see figure 9). Then, securely fasten one end of a fence stretcher to this bar; the other end to terminal post. Stretch fabric until it becomes taut. To judge proper tension, squeeze the diamonds formed by the wire with your hands. Fabric tension is sufficient if a slight slack is created. Adjust fabric to exact length by adding or removing wire as described in figure 8. Then insert a tension bar and connect to tension bands on terminal post. After removing fence stretcher fasten fabric securely with tie wires spaced approximately 24" apart along the top rail and 12" apart on each line post (see figure 10). Finally, securely tighten nuts on all brace and tensions bands.

Fig. 11



STEP 7 HANGING GATES

The same installation procedure is used on both single walk and double drive gates see figure 11). Apply post (male) hinges to gate post. To prevent gate from being lifted off, top post hinge should be installed with pin pointing down; bottom post hinge with pin pointing up. Set gate in place, aligning top of gate with top of fence. Adjust hinges to allow for full swing. Position gate latch at convenient height. Tighten all bolts securely.

RESIDENTIAL CHAIN LINK FENCE PARTS AND MATERIALS

DESCRIPTION	QUANTITY TO USE
TERMINAL POSTS (End, Corner and Gate Posts)	As required (2 for each gate)
LINE POST (Intermediate Post)	See Line Spacing Chart
TENSION BAND	For each end post, use 3 for 3', 3½' and 4'. 4 each for 5', 5 each for 6' high. Same for gate posts. Double the quantity for corner posts.
BRACE BAND	1 for each rail end
5/16" x 1¼" CARRIAGE BOLT	1 for each brace band. 1 for each tension band
POST CAP	1 for each terminal post
EYE-TOP	1 for each line post
TOP RAIL, plain or swedged end	Same lineal footage as fence fabric
RAIL-END	1 for each end post 1 for each gate post 2 for each corner post
TOP RAIL SLEEVE	1 for each length of plain end top rail. Not needed for swedged end top rail
TENSION BAR	1 for each end post 1 for each gate post 2 for each corner post
FENCE FABRIC	Same lineal footage of fence less gate openings
TIE WIRES	1 for every 24" of top rail and 1 for every 12" of line posts
DOUBLE DRIVE GATE	1 drive gate hardware set or individual fittings as indicated below
SINGLE WALK GATE	1 walk gate hardware set or individual fittings as indicated below
POST HINGE (Male Hinge)	2 for single walk gate, 4 for double drive gate
⅜" x 3" CARRIAGE BOLT	1 for each post hinge
GATE HINGE (Female Hinge)	2 for single walk gate, 4 for double drive gate
⅜" x 1¾" CARRIAGE BOLT	1 for each frame hinge
FORK LATCH	1 for each walk gate