PLAINTIFF'S EXHIBIT

BIR-846

3906B

MEMORANDUM

BBQ - Mr. Homer
BBR- Mr. Adams
BK- Mr. Fuller

In Reply to *Date* 3/23/71 *From* BBH *To*

Subject ARCHITECT 70 SHINGLE: STAPLES & WIND SEAL FEATURE

Drawings and specification sheet of the Architect 70 shingle were prepared to show the suggested position of the Wind Seal dots and the suggested position of the three corrosion resistant steel staples. Sketches of Component #1 and Component #2 leaving the shingle cutter are included for the roofing plants located at Shreveport, La., and Wilmington, Calif.

Information on the size and amount of galvanized steel wire that is suggested to be used in manufacturing the shingle is as follows:

Width of Wire	0.103 inch
Thickness of Wire	0.020 inch
Length of Wire/unit weight of wire	146-148 ft./lb.
Length of each staple	1-3/8" ±1/8"
Total length of wire/square	27.5 ft./sq.
Total weight of wire/square	0.2 lb./sq.

Interlake Inc., Chicago, Illinois quoted Mr. Church (BPK) verbal estimates of the cost of the wire delivered to Shreveport, La., and to Wilmington, Calif. In 2,000 lb. lots or more, the wire costs $21.84/cwt., at Shreveport and $22.87/cwt., at Wilmington. Then the cost of the wire per square is $0.044 at Shreveport and $0.046 at Wilmington. Detailed information concerning the special equipment needed to apply the three staples per shingle is available from Central Engineering.

Clifford J Patenaude

CJPatenaude/rp
Attach.

BIRD ARCHITECT® 70 SHINGLE

SPECIFICATIONS

Architect® 70 Shingles:

1. Area per square - Approx. 244 sq. ft.
2. Dimensions - a) overall width 12-1/4"
   b) overall length 36-7/16"
3. Shingles per square - 80
4. Exposure - 5"
5. Headlap - 2"
6. Description - A random edge, uniform thickness, back unit is combined to the rear of the butt portion of a front unit. The two units when combined together make the Architect® 70 Shingle.

Front Unit or Component #1

1. Construction - A uniform thickness strip with cut-out sections removed in exposed area
2. Dimensions - a) overall width 12-1/4"
   b) exposed length 36" with 7/16" self-aligning notches
3. Size of cut-out sections removed - cut-outs vary from (y) 2-1/2" x 5" to (x) 8-1/2" x 5"
4. Area per square - 195 sq. ft.

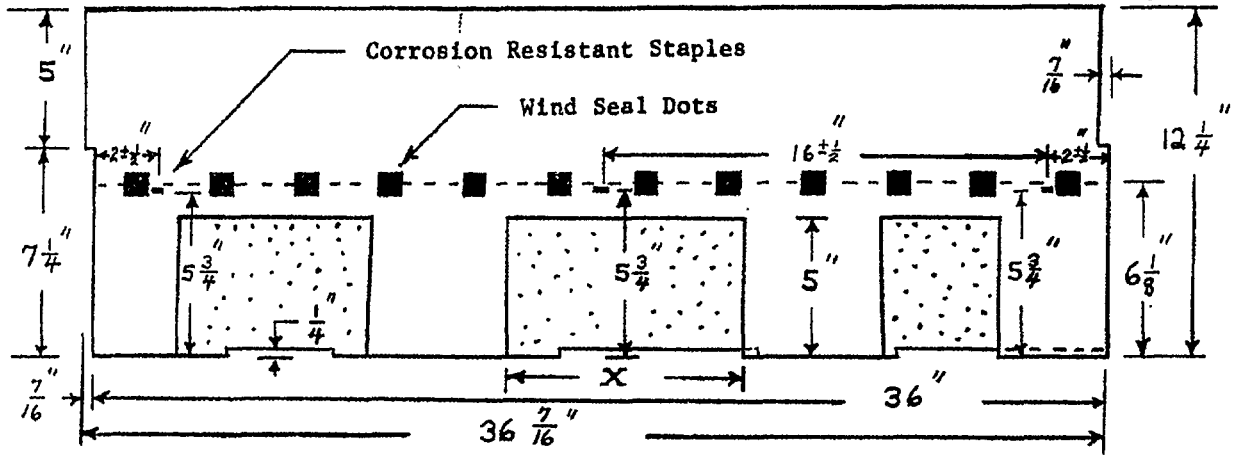
Back Unit or Component #2

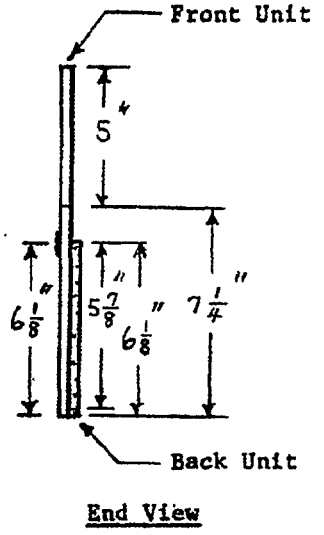
1. Construction - A uniform thickness strip with a random edge
2. Dimensions - a) width varies from 5-7/8" to 6-1/8"
   b) length 36"
3. Area per square - 120 sq. ft.

3/22/71

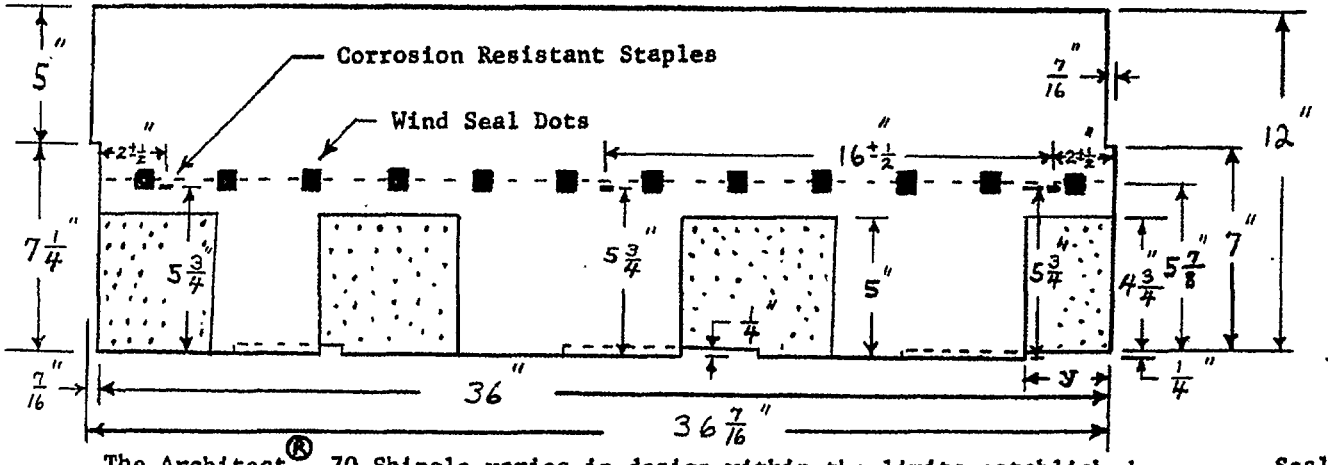
BIRD 013327

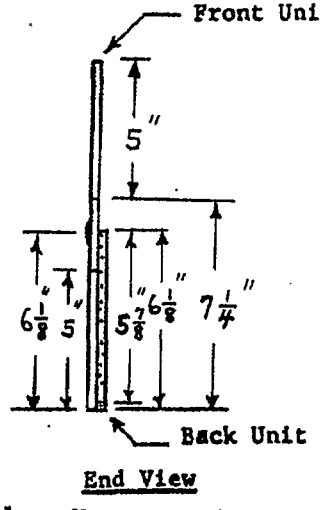
BIRD ARCHITECT® 70 SHINGLE





End View



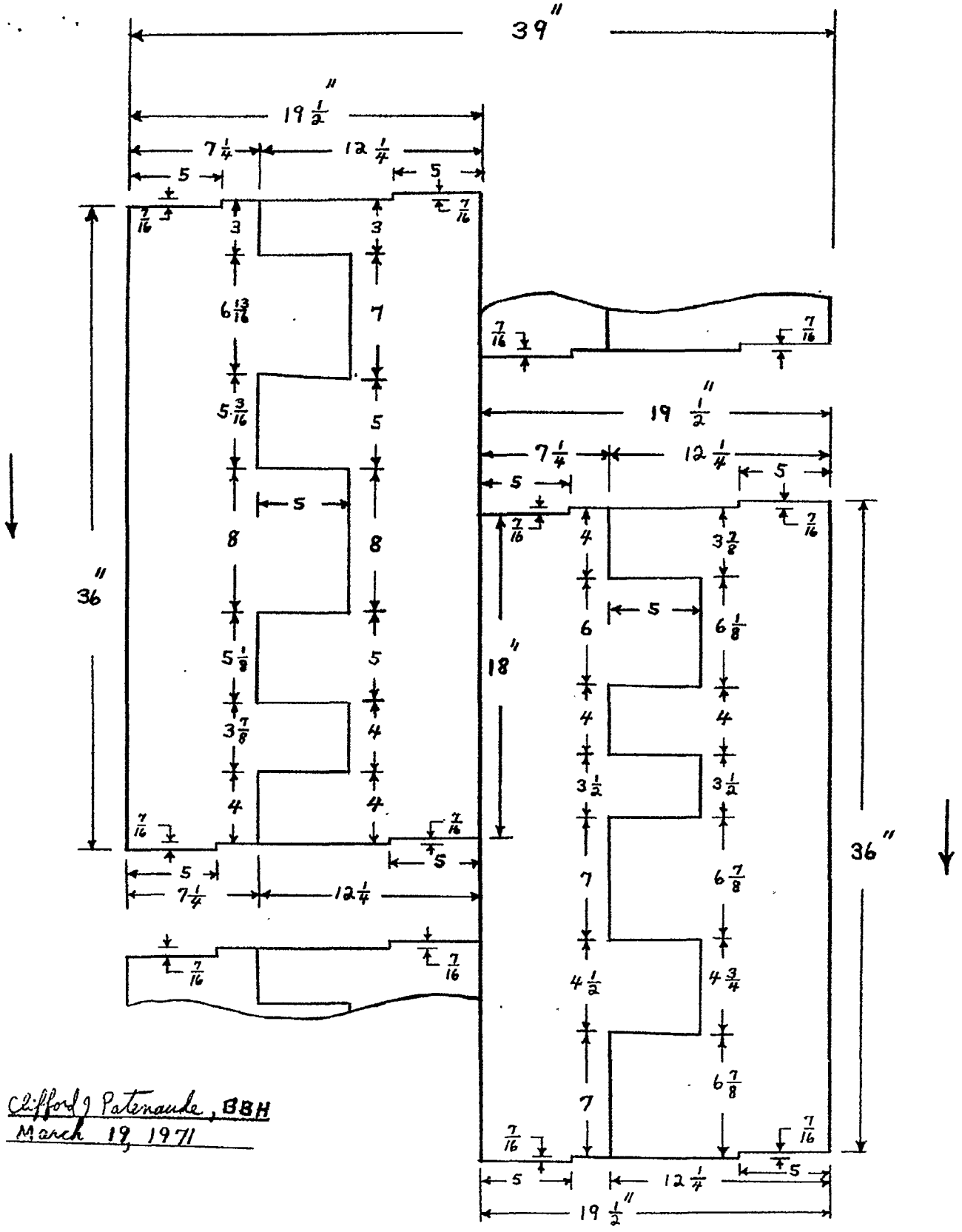


End View

The Architect® 70 Shingle varies in design within the limits established by the schematic drawings and specification sheet.

Scale: Not to scale
Tolerance: ±1/8 inch

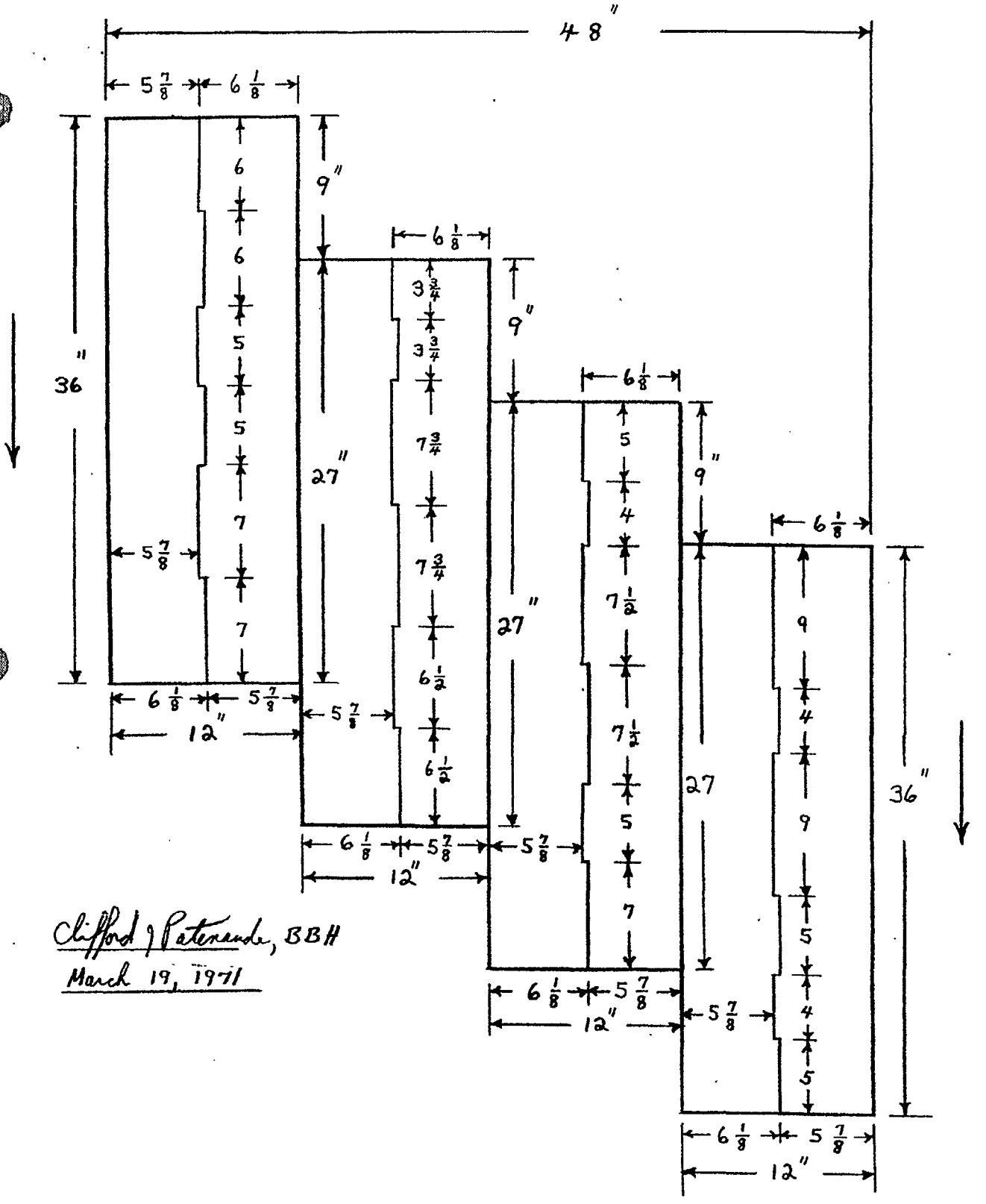
BIRD 013328



Clifford J Patenaude, BBH
March 19, 1971

COMPONENT #1 OF ARCHITECT ® 70 SHINGLE AS IT LEAVES THE SHINGLE CUTTER --- SHREVEPORT, LA.

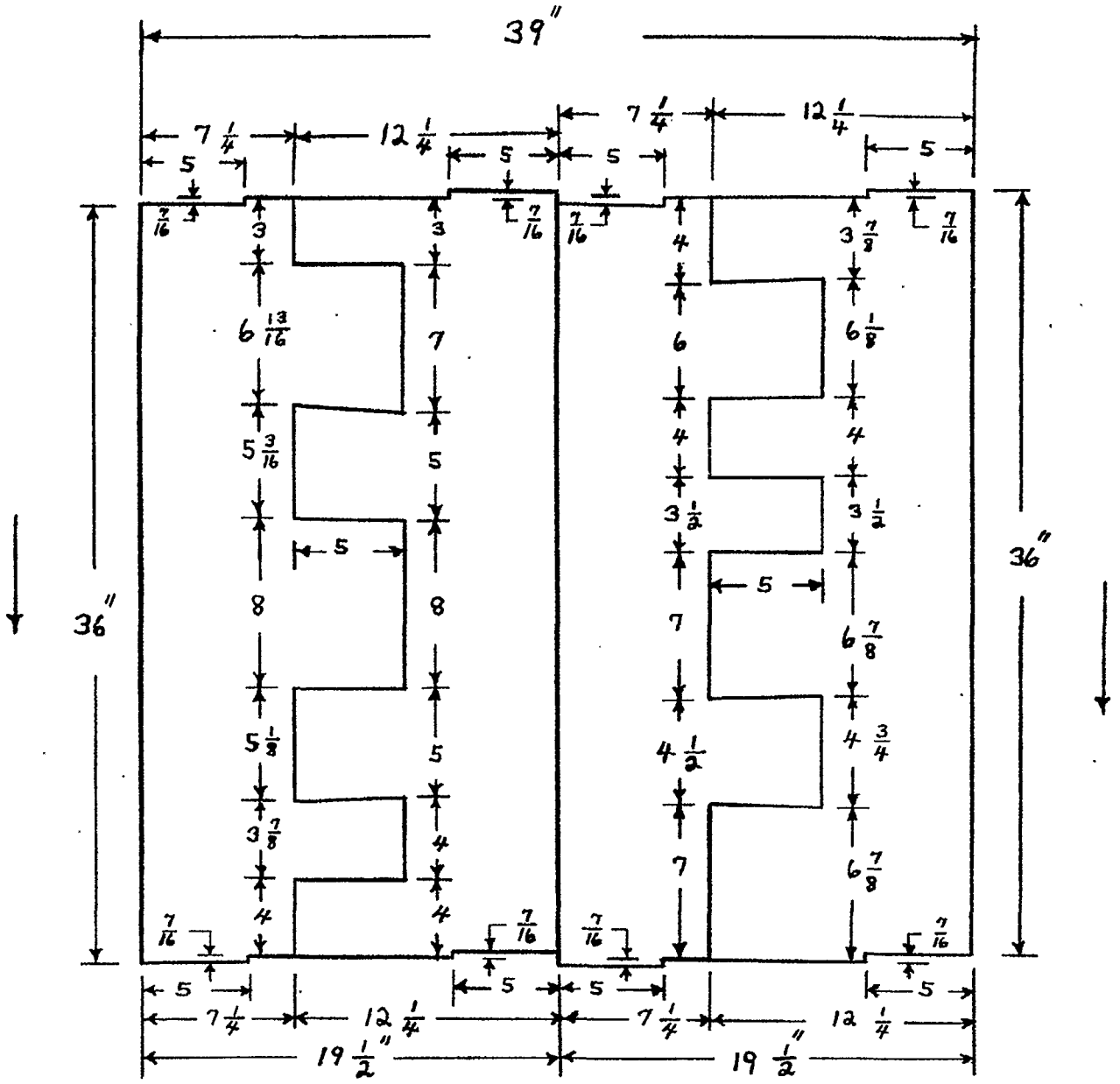
BIRD 013329



Clifford J Patenaude, BBH
March 19, 1971

COMPONENT #2 OF ARCHITECT® 70 SHINGLE AS IT LEAVES THE SHINGLE CUTTER --- SHREVEPORT, LA.

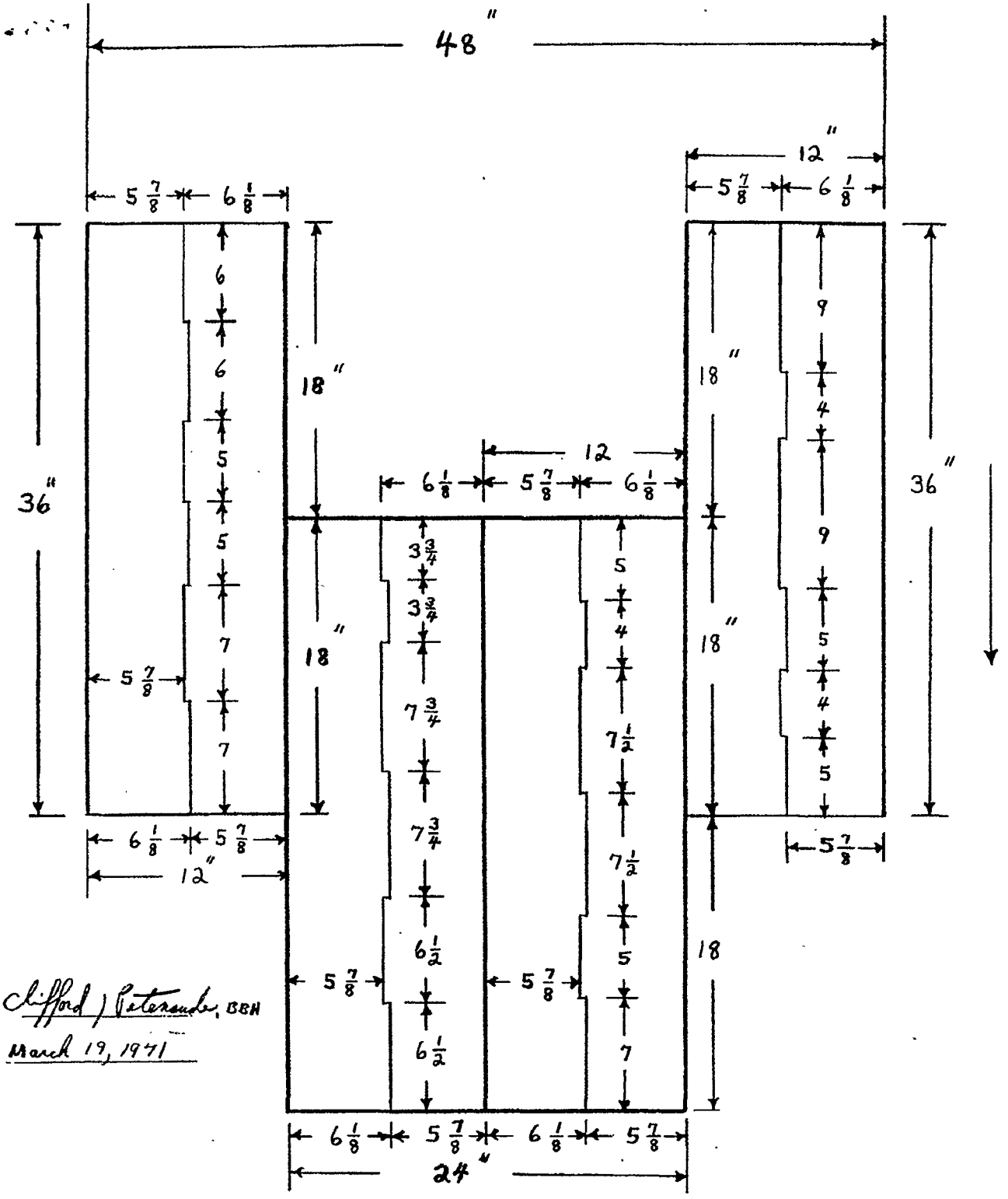
BIRD 013330



Clifford Pattenden, BBH
March 19, 1971

COMPONENT #1 OF ARCHITECT® 70 SHINGLE AS IT LEAVES THE SHINGLE CUTTER - - - WILMINGTON, CALIF.

BIRD 013331



COMPONENT #2 OF ARCHITECT® 70 SHINGLE AS IT LEAVES THE SHINGLE CUTTER - - - WILMINGTON, CALIF.

BIRD 013332