4. J. L. Brown, Jr., "Advanced Problems and Solutions," H-137, *The Fibonacci Quarterly,* Vol. 6, No. 4 (Oct. 1968), p. 250.
5. J. L. Brown, Jr., "Advanced Problems and Solutions," H-137, *The Fibonacci Quarterly,* Vol. 8, No. 1 (Feb. 1970), pp. 75–76.
6. V. E. Hoggatt, Jr., and Marjorie Bicknell, "A Primer for the Fibonacci Numbers," The Fibonacci Association, 1973, pp. 52–64.

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ON THE FORMULA $\pi = 2\Sigma$ arcot f_{2k+1}

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While questing the $n + 1^{st}$ digit of π,
With series by Taylor, MacLauren, et al;
I tried the arcotan of integers high,
While old Leonardo de Pisa did call.

Old friends are a joy and, at times, a surprise
When they serependiciously drop by to chat.
They lighten our labors and open our eyes.
"Eureka!" quoth I. "Now, how about that!"

For what to my wondering eyes should appear,
Intermix't with the spurious inverse contans,
Were eight Fibonacci terms standing right here,
Waiting and patiently holding their hands.

The even term's arcotangent's easily seen
to equal the sum of the next pair in line.
Now start back with π, and keep your eyes keen
It makes 4 arcotan the unit sublime.

Note: 1 is the first and the second old friend.
So rewrite: π equals twice this plus twice that.
"This" is the arcot of the first term of Len.
"That," which we'll split, is from the second old hat.

From 2 we get 3, 4; from 4, 5 and 6.
The evens keep splitting; the odds hang behind.
Forming convergent series: sum twice arcot f
Sub $2k + 1$ which is π, I remind.

We don't know the digit half-million and one.
Guiness, keep stout! There'll be other tries.
I've got half my friends in a pretty new sum.
Well worth the labor to open my eyes.