## FIBONACCI DRAWING BOARD

## COLONEL ROBERT S. BEARD

It is in order to preface the work of the Fibonacci Drawing Board with something of the story of our emblem, The Fibonacci Star.

This star of 21 stars is a refinement of the beautiful star-pentagram commonly used to represent the heavenly bodies.

That star formed by the five diagonals of the regular pentagon was the emblem of the Pythagorean school of philosophy and mathematics. It was discovered by that organization somewhere around 500 B.C. It was probably the first emblem of any mathematical organization.

In time the pentagram or pentacle became credited with the magic power of warding off witches and demons and of insuring good health and good fortune somewhat akin to the power of the hex marks of the Pennsylvania Dutch.

Here are some pertinent quotations:

"They had their crystals I do know and rings and virgin parchment and their deadman's skulls. Their raven's wings, their lights and pentacles with characters," B. Johnson, Devil is an Ass.

"His shoes were marked with cross and shell. Upon his breast a pentacle," Scott Marmion.

"Sketching with slender pointed foot some figure like a wizard pentagram on garden gravel," Tennyson, The Brook.

The universal appeal of the pentagram to the imagination is demonstrated by its use in the design of the flags of many nations and also in its wide use as a symbol for hope, excellence, outstanding performance, rank and authority.

My United Nations flag design encircled a red cross with a wreath of pentagrams on a white field to symbolize world hope united around

our willingness to help each other. No comment on how things are going.

The rank of our top military commanders has been designated by pentagram insignia ever since the American Revolution.

"In 1780 Major Generals were ordered to wear 'two epaulettes with two stars each, 'while Brigadier Generals had one star, and later when the rank of Lieutenant General was established for the Commanderin-Chief, Washington, three stars were prescribed for him. This was the commencement of our rank insignia." Orders, Decorations and Insignia, Military and Civil, Colonel Robert E. Wyllie, G. P. Putnam's Sons.

World War I produced our first four-star general, while World War II furnished our top admirals and generals with clusters of five pentagrams.

No doubt the foreign devils are being kept away from our shores by the pentacles flashing on the uniforms of our military leaders as they circulate around our great Pentagon Building on the banks of the Potomac.

The mathematics of the Fibonacci Star will be discussed in proper order at a later date. However, it might be mentioned here that it is proportioned in 10 successive terms of a Fibonacci series, the powers of the golden section or golden mean.

Perhaps you'll tolerate the winding up of this story with the second verse of Cowper's poem, "The Golden Mean," which is a translation from the Latin of Horace.

"He that holds fast the golden mean
And lives contentedly between
The little and the great,
Feels not the wants that pinch the poor
Nor plagues that haunt the rich man's door
Embittering all his state."

Have your pencils sharpened next time and get ready to go to work.