

## THE JOURNEY THROUGH THE PATENT PROCESS:

From the beginning of this project I knew that since no one before me had been able to solve the puzzle of how to generate thrust with a device different from all previous ones like propellers, drive wheels and rocket exhaust, getting the U.S. Patent office to accept my application would be difficult. It was. Some of the first advice I received was that I would have to build a proof of concept version of StarDrive Propulsion to show that it truly worked, so I did. That wasn't good enough though as the first patent examiner said what I was claiming was impossible and the device seen in the pool test was "ratcheting" against the water, so I did more. I tested the device with state of the art sensors, called load cells, to measure the thrust my invention made. Still unsure whether that was enough, I also analyzed the system mathematically and demonstrated that it followed the conservation of energy laws and extracted angular momentum from the thrust masses and turned that energy into linear momentum.

Mindful of the maxim that a picture is worth a thousand words, I had my first model, the Mark I version of my StarDrive Propulsion device, opened up by the machine shop that made it so I could video its internal mechanisms in action to demonstrate why it is a thruster, and not an oscillator. Reviewing all of these proofs that showed StarDrive works as claimed; that it can and does produce thrust even in space, the 3 senior patent examiners who reviewed the initial patent examiner's denial of my application agreed that StarDrive Propulsion works as claimed. Elated at that result I quickly sent the money for the publication of my patent (Yes, they do charge you to publish it!) and received the first patent for a device that produces thrust in space that isn't a rocket.

Having successfully shown that the design principles work, I then had my patent attorney send in my first design improvement to the U.S. Patent Office. I call it the EMMA upgrade (see the drawings). EMMA stands for Effective Mass Multiplication Apparatus. What it does is allow me to use high strength composite materials to build a very light device capable of producing substantially (+1000x) more thrust than the original design. Enough to move cars, boats and planes and spacecraft to the planets and stars. My attorney worked with me to prepare and submit the improved design to the Patent Office. We expected the usual delays in having it processed. Much to my great joy and satisfaction, we quickly received the following notice from the Patent Office:

"The subject matter of this application appears to "have significant utility in the conduct of aeronautical and space activities" as recited in 42 U.S.C. 2457 (National Aeronautics and Space Administration (NASA))."

My attorney has received such notices about 5 times in the 20+ years he has been a patent lawyer. I have now gone from submitting a patent application that was initially rejected as being impossible, to submitting an upgrade to that same patent that is now recognized as being exactly what I said it was, a fully capable "Impulse Drive" that will change how we all get around home planet, and beyond.

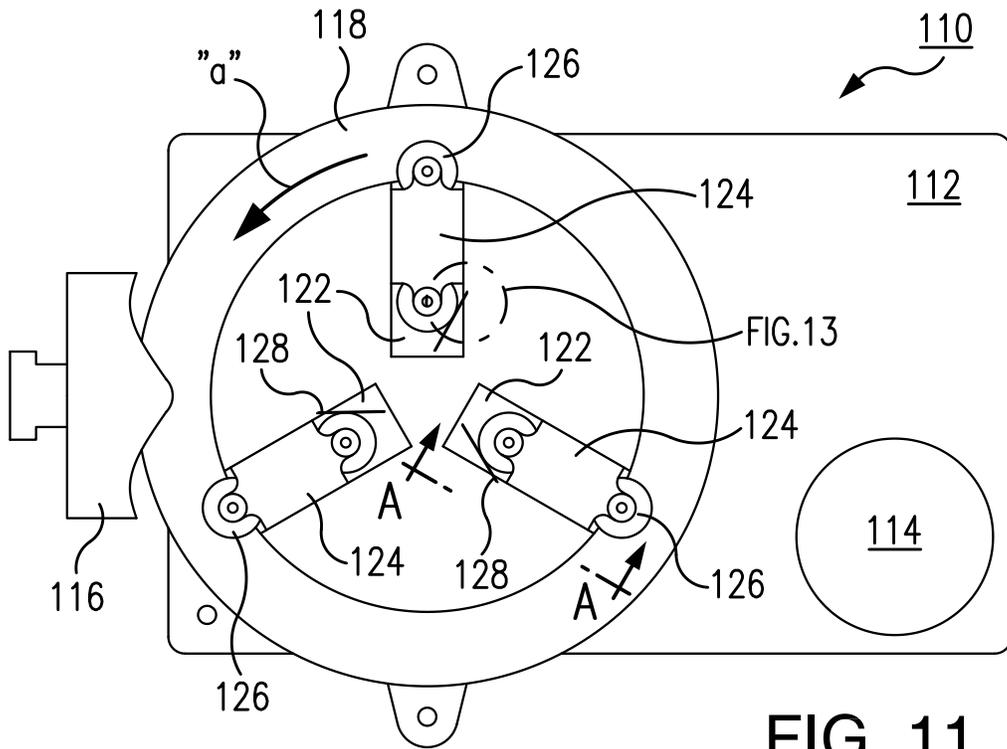


FIG. 11

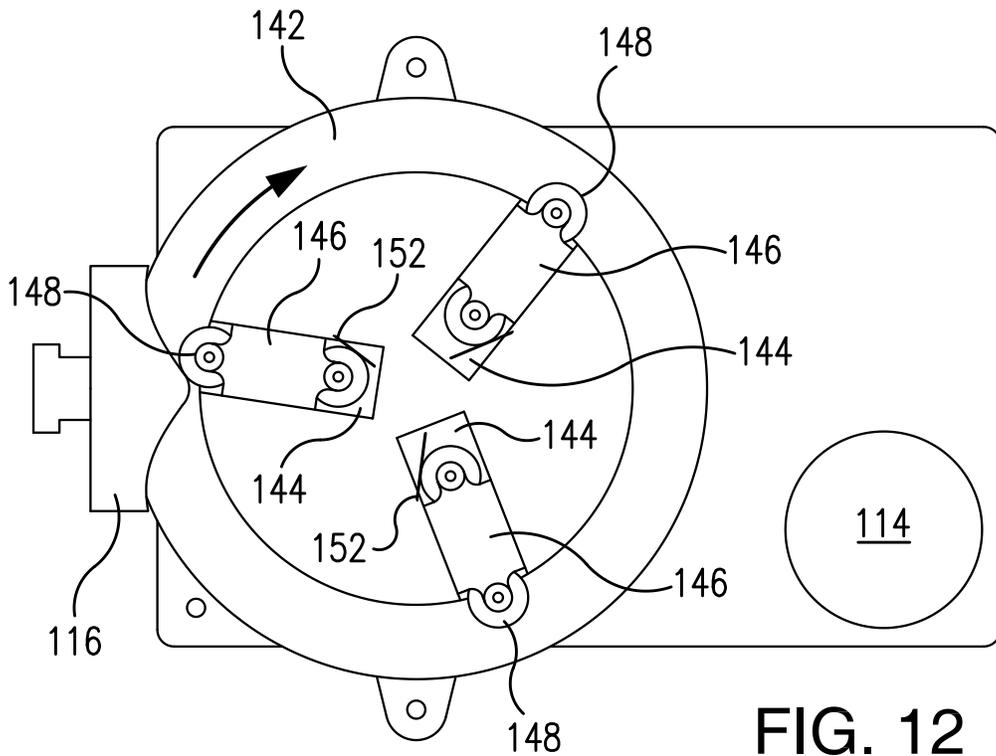


FIG. 12

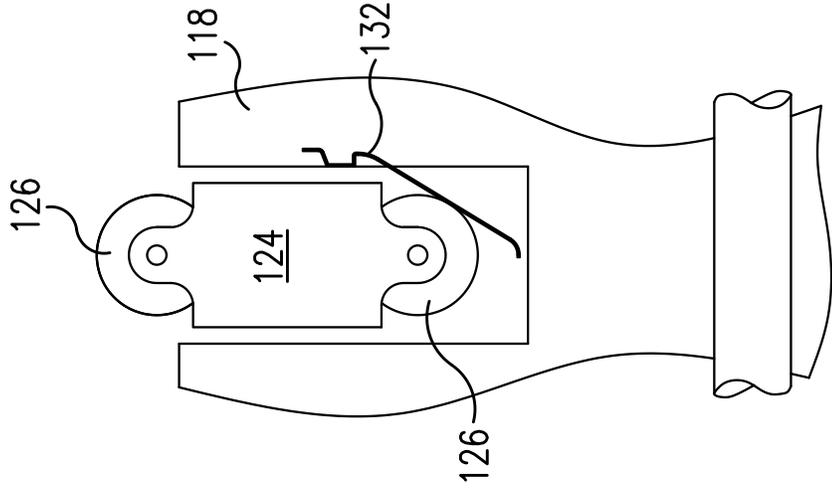


FIG. 13

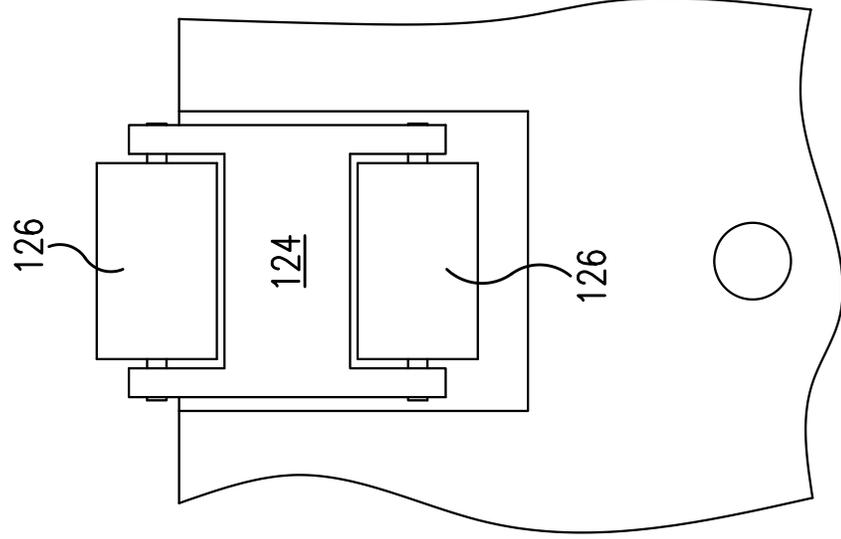


FIG. 14

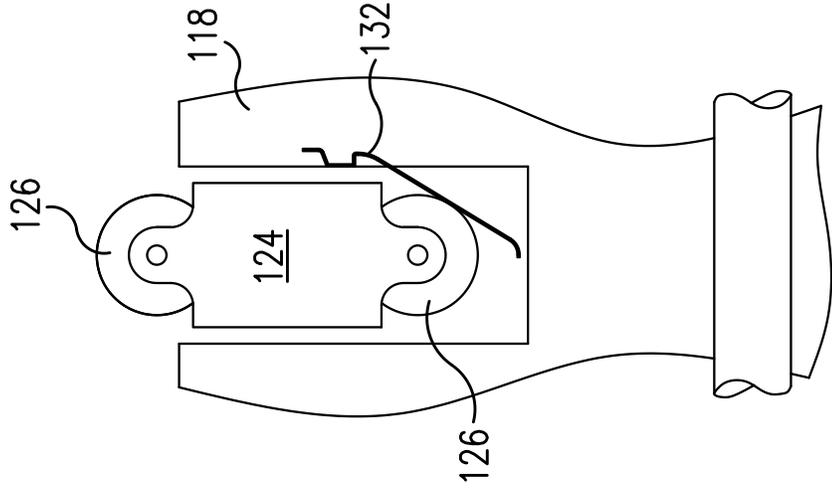


FIG. 15