



## Out with the Old and In with the New!



## **DID YOU KNOW:**

(Technology is the wave of the future and we here at Lewis Electric are prepared to meet all it's newest demands). We design and install Closed Circuit Television Systems. Security and surveillance monitoring equipment for retail stores, homes, Warehouses, correctional institutions and many other applications. We have a large number of manufacturers products available to build you the system that will fit all your needs. You can draw from a large list of equipment, color or monochrome monitors and cameras, specialty housings, remote pan and tilt, and zoom lenses. Wireless systems are also available. In addition to these items we also carry discreet video and recording systems, you can get cameras that look like clocks, smoke detectors, lighting fixtures and more.

(And did you know that Dade County is now cracking down on two major items). Fire Alarm Systems and parking lot lighting. We here at Lewis Electric are keeping up with

changes. We have the capability to design, build and install parking lot lighting packages to meet your individual needs while keeping costs as low as possible.

Also did you know that Fire Alarm Code Regulations call for Quarterly, Semi-Annual, and Annual inspections for your Fire Alarm Systems and that your log books be brought up to date. We have the specialty trained technicians and the equipment to perform these services.

Let's talk a little bit about the **Telephone**. The standard telephone wiring of yesterday is no longer acceptable. The use of fax machines, high speed data lines, computers, and other telecommunication devices that are all changing to higher speed needs, and multiple line uses, to come in the future. Soon all Homes and Businesses will be equipped with category 5 type wiring. Which will enable regular voice data, high speed fax or modem transmissions, as well as carry the signals of home entertainment, such as movies and interactive video, high tech. communications, and the educational systems of the future.

**Electric Motors:** most people don't see an electric motor every day, like they do a light bulb or a telephone. That is because electric motors are not visible in many cases. They are found in many household appliances.

Ever wonder what keeps those huge bubbles in Nurseries up, electric motors power fans to inflate the bubble, they also are the soul of the heating and cooling systems. Farming now relies heavily on electric motors, these motors run irrigation pumps, Packing equipment, even the boxes fruit is packed in are put together with machines powered by electric motors.

### **Inside**

- 1 Did you Know:**
- 2 Electric Motors**
- 3 The Light Bulb**



## **Happy New Year**

- ☑ **Fire Alarm Systems**
- ☑ **Closed Circuit TV**
- ☑ **Telephone Systems**
- ☑ **Home Automation**
- ☑ **Surge Suppression**
- ☑ **Design and Build**
- ☑ **UPS Systems**
- ☑ **Commercial Electric**
- ☑ **Packing Houses**
- ☑ **Nurseries and Farms**
- ☑ **Electric Motors**
- ☑ **Automatic Gate Openers**

Motors began with electromagnets, Michael Faraday succeeded in building the first electric motor in 1831. Joseph Henry was working with motors at that time also. Both Henry and Faraday are both credited with building the first experimental true ancestor of the current electric motor. In 1887, Nikola Tesla introduced the Alternate Current (AC) motor. All other motors up to that time had been Direct Current (DC). (Now, alternate current motors are being used more than the direct current type motor).

Today electric motors are used everywhere, even though many people don't recognize what they do and how important they in our modern society.

Our work is done with service and technical excellence, while keeping the customers cost as low as possible. We are knowledgeable, flexible, and want to work with our customers, Farmers, Packing Houses, Commercial and Residential to help determine their needs with the right equipment and applications. Our design and build capabilities are second to none locally. And remember you satisfaction is very important to us here at Lewis Electric.

**The Incandescent Lamp:**

The incandescent lamp is just another name for your regular light bulb. Invented in the 1800's, it is widely used today in nearly every home, office and commercial building in the world.

The incandescent lamp can be broken into three different parts: the base, the filament, and the bulb.

The **filament** is the wire inside the bulb. When electricity runs through the filament, it heats to over 4500 degrees Fahrenheit, which causes the filament to give off light. The filament is what determines the wattage of the lamp. For example, a 50 watt filament is made differently than a 100 watt filament so different amounts of light would be given off. A lamp could have more than one filament in it, The

filaments could be burned either separately or together to produce different amounts of light. This is how the modern 3 way bulbs used in most lamps in our houses work.

The **Bulb** is the clear "shell" around the filament. It's purpose is to keep air away from the filament so that it doesn't burn up right away. A mixture of gases inside of the bulb help give the filament a longer lifetime, as well as keeping the electricity from jumping or shorting. The gas mixture is usually made up of argon and nitrogen.

The third part, the **Base** the base of the lamp, is simply what holds the filament and bulb in place, allowing electricity to get to the filament.

People started working with electric lights and arcs as early as 1812, but not until Thomas Edsion started working on it did anything exciting happen. He successfully made a lamp using carbonized strips of bamboo. Carbon has a very high melting point, and it worked very well as a filament. So he was credited with the invention. He then perfected his lamp and began selling it. And over the years many changes were made, the carbonized bamboo was replaced with tungsten which emits a much brighter light and is still being used today.

