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The young man's book of amusement

Halifax, 1848

Spirits Ignited by Electricity

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Resin Ignited by Electricity.

Wrap some cotton wool, containing as much powdered resin as it will hold, about one of the knobs of a discharged rod. Then having charged a Leyden jar, apply the naked knob of the rod to the external coating, and the knob enveloped by the cotton to the ball of the wire. The act of discharging the jar will set fire to the resin.

A piece of phosphorus or camphor wrapped in cotton wool, and used in the same way, will be much more easily inflamed.

Spirits Ignited by Electricity.

Hang a small ball with a stem to the prime conductor, so that the ball may project below the conductor. Then warm a little ardent spirit, by holding it a short time over a candle in a metallic spoon; hold the spoon about an inch below the ball, and set the machine in motion. A spark will soon issue from the ball, and set fire to the spirits.

This experiment may be varied different ways, and may be rendered very agreeable to a company of spectators. A person, for instance, standing upon an electric stool, and communicating with the prime conductor, may hold the spoon with the spirits in his hand, and another person, standing upon the floor, may set the spirits on fire, by bringing his finger

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within a small distance of it. Instead of his finger he may fire the spirits with a piece of ice, when the experiment will seem much more surprising. If the spoon be held by the person standing upon the floor, and the insulated person bring some conducting substance over the surface of the spirit, the experiment succeeds as well.

Electrified Ball.

Place an ivory ball on the prime conductor of the machine, and take a strong spark, or send the charge of a Leyden phial through its centre, and the ball will appear perfectly luminous; but if the charge be not sent through the centre, it will pass over the surface of the ball and singe it. A spark made to pass through a ball of box-wood, not only illuminates the whole, but makes it appear of a beautiful crimson, or rather fine scarlet colour.

Illuminated Phosphorus.

Put some of Canton's phosphorus into a clear glass phial, and stop it with a glass stopper, or a cork and sealing-wax. If this wire be kept in a darkened room (which for this experiment must be very dark) it will give no light; but let two or three strong sparks be drawn from the prime conductor, when the phial is kept about two inches distant from the sparks, so