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DYNAMITE CHARGE HOLDER

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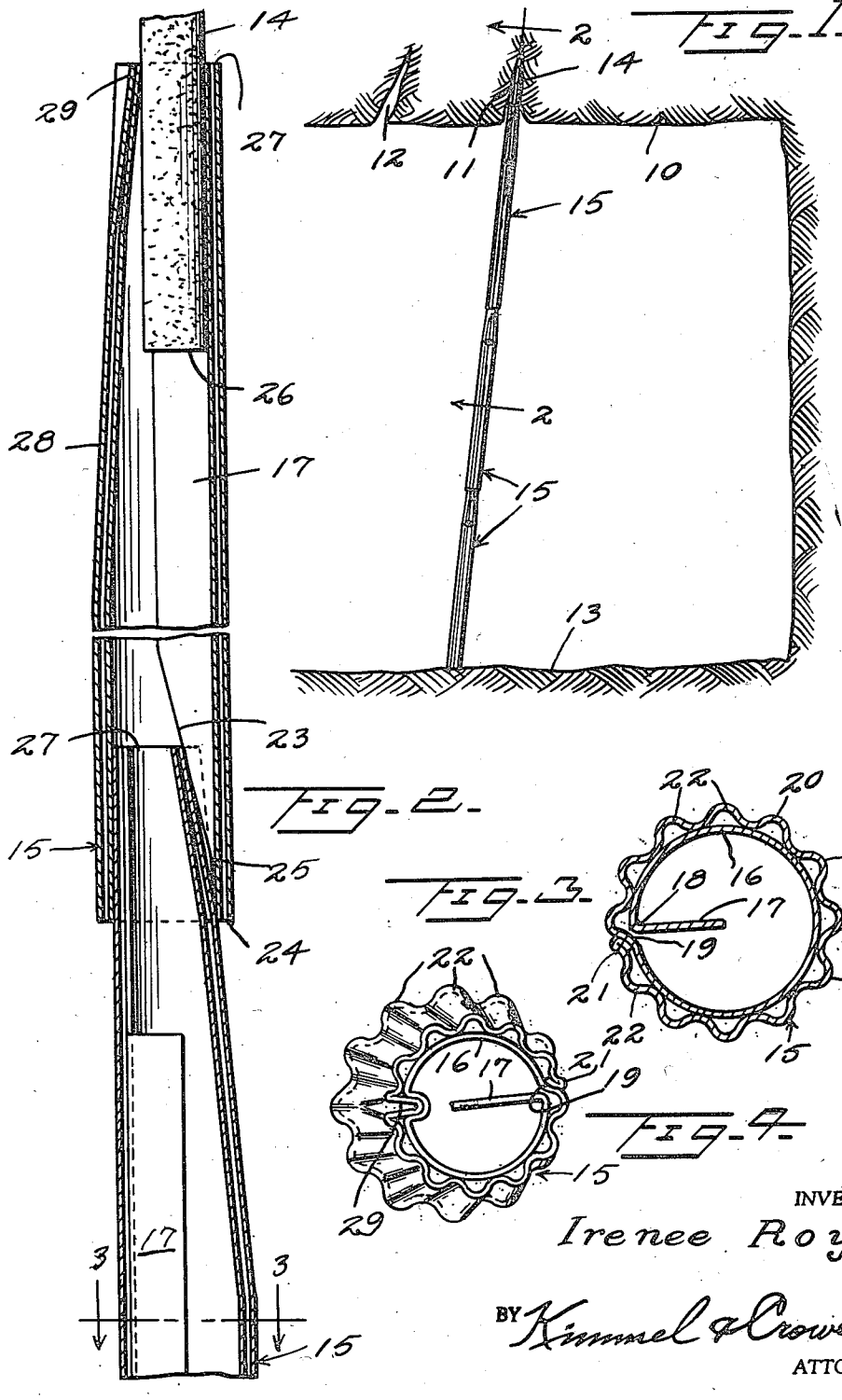


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

INVENTOR

Irenee Roy

BY Kimmel & Crowell

ATTORNEYS

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DYNAMITE CHARGE HOLDER

Irenee Roy, Thetford Mines, Quebec, Canada

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3 Claims. (Cl. 102—22)

The present invention relates to dynamite charge holders, and more particularly to a charge holder of the type adapted to hold a dynamite charge in "hard to get at" positions in asbestos mines.

The present invention comprises a continuation-in-part of my copending application, now abandoned, Serial No. 355,217, filed May 15, 1953, entitled "Dynamite Charge Holder."

In asbestos mining it is essential that foreign materials be excluded from the powdered asbestos to prevent contamination of the product and subsequent loss of the contaminated material. It has been found in practice that ferrous magnetizable metallic contaminate can be removed with ease by passing the powdered asbestos adjacent either an electro or permanent magnet. Non-magnetizable contaminate, however, is almost impossible to remove by any means and completely impossible to remove economically.

The primary object of the invention is to provide a plurality of end to end secured members which may be extended to any desired length and which have means for supporting the dynamite charge thereon with the members formed of magnetizable material.

Another object of the invention is to provide a device of the character described, in which the members are formed of lightweight metal formed into a coil with the outer wrap thereof corrugated.

A further object of the invention is to provide a dynamite support of the class described which is formed of sections of magnetizable sheet metal such that blown up fragments thereof may be easily removed from the blasted material by means of a magnet.

A still further object of the invention is to provide a dynamite holder of the class described which is inexpensive to manufacture, light in weight and extremely rigid.

Other objects and advantages will become apparent in the following specification when considered in the light of the attached drawing, in which:

Figure 1 is a vertical cross-section of an asbestos mine illustrating the dynamite charge holder supporting a stick of dynamite in a crevice in the roof of a mine;

Figure 2 is a fragmentary enlarged transverse cross-section taken along the line 2—2 of Figure 1, looking in the direction of the arrows;

Figure 3 is a horizontal cross-section taken along the line 3—3 of Figure 2, looking in the direction of the arrows, and

Figure 4 is an end elevation of the device illustrated in Figure 2.

Referring now to the drawings in detail, wherein like reference numerals indicate like parts throughout the several figures, the reference numeral **10** indicates generally a roof of a mine having crevices **11** and **12** therein. The crevices **11** and **12** may be either natural or man-made.

A floor **13** underlies the roof **10** and forms a bottom of

the mine shaft. A stick of dynamite **14** is illustrated as extending into the crevice **11** supported by a plurality of support members **15** secured together in end to end relation with the lowermost one thereof engaging the floor **13** of the mine. Each of the support members **15** comprises an inner cylinder **16** formed of magnetizable light gauge sheet metal which terminates in an inturned radial rib **17** at one side edge **18** and integrally joined at the other side edge **19** with a corrugated outer cylinder **20** which terminates in a reverted side edge portion **21**. The corrugations **22** of the corrugated cylinder **20** are formed with their axes extending parallel to the axes of the cylinders **16** and **20**.

The rib **17** is tapered, as at **23**, at the end **24** of the support member and terminates at a point **25** inwardly of the end **24** of the support member. The opposite end **26** of the rib **17** terminates a substantial distance inwardly from the end **27** of the support member **15**. The end **27** of the support member **15** is crimped inwardly to provide a tapering portion **28** to reduce the over-all diameter of the end **27** and a tapered groove **29** is formed in one wall of the support member **15** extending inwardly from the end **27** thereof. The groove **29** is adapted to engage over the tapered portion **23** of the rib **17** to lock the end **27** of one support member **15** against rotation when it is inserted into the end **24** of another support member **15**.

The dynamite **14** is inserted into the end **27** of the support member **15** and engages against the end **26** of the rib **17** to prevent the dynamite **14** from moving a greater distance into the support **15**. The one-piece construction of the support members **15** and the particular combination of an inner smooth cylindrical portion and an outer corrugated cylindrical portion provide a support member of quite light weight and considerable strength.

In the use and operation of the invention, the support members **15** are assembled in end to end relation, as illustrated in Figure 2, in whatever quantity is necessary to support the dynamite at the desired point. It is quite evident that the blasting action of the dynamite stick **14** will damage one or more of the sections **15** to such an extent that they will be unusuable in further operations. Hence it is imperative that the supports **15** be formed from not only magnetizable material, but light inexpensive material to permit blasting operations to be carried out without undue expense.

Having thus described the preferred embodiment of the invention, it should be understood that numerous modifications and structural adaptations may be resorted to without departing from the scope of the appended claims.

What is claimed is:

1. A dynamite charge holder comprising a sheet of magnetizable metal formed into a substantially cylindrical inner tubular member having a generally smooth surface, a substantially cylindrical longitudinally corrugated outer tubular member formed integrally with and encompassing said inner tubular member, said inner and outer tubular members having one end thereof crimped to form a tapering reduced end portion and having the opposite end thereof open, and a radial longitudinally extending rib carried by and extending inwardly of said inner tubular member, said rib having the end thereof adjacent the open end of said tubular members tapered outwardly and the end thereof adjacent the crimped end of said tubular members terminating inwardly of the adjacent end of said tubular members, said holder being adapted to have the crimped end thereof telescoped within the open end of a second similar holder.

2. A device as claimed in claim 1 wherein the crimped end of said holder is adapted to receive and support a

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dynamite stick with the end of said rib adjacent the crimped end of said holder serving as a support for the inner end of said dynamite stick.

3. A device as claimed in claim 1 wherein the crimped end of said charge holder is provided with a longitudinally extending groove to engage the tapered end of a similar rib of a second similar holder upon telescopically joining two similar holders in end to end relation.

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